

# **Basic and Operational Doctrine for Airpower in Irregular Warfare**

**A Monograph  
by  
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## **Abstract**

**BASIC AND OPERATIONAL DOCTRINE FOR AIRPOWER IN IRREGULAR WARFARE** by Major Robert M. Chavez Jr., USAF, 88 pages.

The US Air Force, and the U.S. armed forces separate service air arms, have historically wrestled with how to apply air and space power to non-traditional forms of warfare, such as insurgency and counterinsurgency. While the airplane was used as early as 1916 in such a context in the Punitive Expedition against Francisco “Pancho” Villa, U.S. military doctrine has struggled to keep pace with the ever-evolving nature of warfare, especially with regard to air and space power’s role within it. The U.S. joint community’s latest development of the warfare spectrum includes insurgency and counterinsurgency under the construct of irregular warfare, delineating it from traditional war, which is characterized by conventional, state-on-state major combat operations.

This monograph explores and evaluates the history of airpower doctrine in irregular warfare and assesses the current state of that doctrine, asking the question: what is the best synthesis of ideas for creating a basic and operational irregular warfare airpower doctrine? The study establishes a set of criteria for evaluating irregular warfare airpower doctrine based on analytical studies by several prominent and recent small war airpower researchers. Finally, the paper evaluates current and past irregular warfare airpower doctrine through this analytical lens, providing recommendations for the improvement of USAF and joint airpower in irregular warfare doctrine.

The inquiry concludes that through the short history of powered flight there have been numerous examples of viable irregular warfare airpower theory and doctrine. On balance, however, the current state of such doctrine is uneven, with the greatest deficiencies being at the basic and first-tier operational levels. These deficiencies include properly defining the full spectrum of conflict, providing a fundamental and operationalizing airpower theory incorporating irregular warfare, and specifying air and space power roles and capabilities with regard to counterinsurgency and support to counterinsurgency. The study provides recommendations for improvement in these areas with the intent of building USAF irregular warfare airpower doctrine in preparation for the refinement and development of complementary joint doctrine.

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## CHAPTER ONE - INTRODUCTION

The use of aircraft in small wars, or irregular warfare, has interested airpower theorists since the first use of airplanes in warfare in the early twentieth century. The questions that vexed early twentieth century U.S. airpower theorists include: what are the differences between “small” and major wars, what is the definition of “irregular” war, and can airpower contribute in an irregular warfare environment? Sporadically, U.S. airpower thinkers over the past century sought to answer these questions and some of those airpower discussions of irregular warfare theory occasionally found their way into established military service doctrine. This monograph explores the history of U.S. airpower small wars doctrine, with an emphasis on the U.S. Air Force (USAF), to reveal where that doctrine now stands and how it might adapt to meet the U.S. national security needs of the twenty-first century.

### **Purpose and Significance**

Historically, USAF doctrine for airpower in small wars has been limited and uneven, interspersed with some occasional true conceptual breakthroughs. The USAF traditionally focused its theoretical and doctrinal efforts on the central airpower functions of air superiority, strategic bombing, and interdiction.<sup>1</sup> Airpower in small wars gathered some professional interest in the USAF during the Vietnam War, but largely disappeared from professional discourse in the 1970s. The 1980s saw a resurgence of professional interest, culminating in the creation of USAF basic and operational-level doctrine that addressed airpower in counterinsurgency in the early nineties.<sup>2</sup> Since the 1992 version of Air Force basic doctrine, the service’s basic and operational doctrine documents have regressed to virtually no mention of small wars, counterinsurgency, or irregular warfare, with the exception of three pages on guerrilla warfare and a doctrine document

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<sup>1</sup> Dennis M. Drew, “U.S. Airpower Theory and the Insurgent Challenge: A Short Journey to Confusion,” *The Journal of Military History*, no. 62 (October 1998): 824-825.

<sup>2</sup> *Ibid.*, passim.

on foreign internal defense.<sup>3</sup> Both Air Force and joint foreign internal defense doctrines categorize counterinsurgency and foreign internal defense under military operations other than war focusing on what is known as internal defense and development strategy.<sup>4</sup> However, major irregular warfare operations and campaigns, like those conducted by U.S. forces in places such as the Philippines, Vietnam, and Afghanistan, are not addressed.

The current U.S.-named Global War on Terror, which is a distinctly irregular conflict, is likely to last for many years. Due in no small part to the type of rivals faced by the U.S. in that struggle, irregular challenges are now one of the four major focus areas in the *National Defense Strategy of the United States*. Conventional general wars, largely consisting of what the *National Defense Strategy* calls "traditional challenges,"<sup>5</sup> are much less likely now and in the foreseeable future than are small wars.<sup>6</sup> Thus, to help meet the challenges of the current and projected operational environment, the U.S. military requires practical guidance for the use of airpower in irregular warfare. While there is ample irregular warfare airpower *theory* available, a complete basic and operational *doctrine* is far overdue.<sup>7</sup>

## Primary and Secondary Research Questions

This section presents the questions that frame this monograph's inquiry. The primary research question is, what is the best synthesis of ideas for creating a basic and operational irregular warfare airpower doctrine?

The primary question leads to several secondary questions:

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<sup>3</sup> John W. Doucette, "US Air Force Lessons in Counterinsurgency: Exposing Voids in Doctrinal Guidance," (thesis, US Air Force School of Advanced Airpower Studies, Maxwell AFB, AL, 1999), 81-84.

<sup>4</sup> USAF, *AFDD 2-3.1, Foreign Internal Defense*, (Maxwell AFB, AL: Air Force Doctrine Center, 2004); and US Joint Staff, *JP 3-07.1, Joint Tactics, Techniques, and Procedures for Foreign Internal Defense*, (Washington, DC: Directorate for Strategic Plans and Policy [J-5], 2004).

<sup>5</sup> Department of Defense (DOD), *The National Defense Strategy of the United States of America*, (Washington, DC: Office of the Secretary of Defense, 2005), 2.

<sup>6</sup> Max Boot, *The Savage Wars of Peace: Small Wars and the Rise of American Power*, (New York, NY: Basic Books, 2002), xx.

<sup>7</sup> Doucette, 85, and Drew, 832.



1. What is irregular warfare and how does it differ from traditional warfare?
2. What is the extant historical and current doctrine for airpower in irregular warfare?
3. What are the criteria for validating the content of basic and operational irregular warfare airpower doctrine?
4. What is missing from current irregular warfare airpower doctrine?
5. What is the best format, content, and placement for irregular warfare airpower basic and operational doctrine in USAF and joint publications?

This chapter begins the exploration of the secondary questions by looking at question 1. Subsequent chapters explore each of the remaining questions. However, before beginning the investigation of these questions, the next section defines the monograph's scope.

## **Scope**

Several limitations are required to narrow this inquiry's range of consideration. First, with respect to evaluating doctrinal history, this study focuses only on official U.S. military doctrine regarding the use of airpower in irregular warfare. Where such doctrine is not extant, this paper posits institutional attitudes given military employment practices at the time. The monograph examines some doctrine from other services, particularly the U.S. Marine Corps, but recommends only improvements to USAF and joint doctrine. The focus is almost exclusively on doctrine for the air, or aircraft, portion of airpower, consigning most considerations for space and spacecraft in irregular warfare to a separate examination. Next, considerations for how USAF ground units (Tactical Air Control Parties, Combat Controllers, Security Forces, and others) conduct operations in irregular warfare are beyond the scope of this paper and best left to expert studies by ground combat operators and scholars. Finally, this paper only recommends changes to basic and operational-level doctrine, providing no inputs for tactical doctrine or tactics, techniques, and procedures.

Several assumptions also narrow this monograph's scope. First, irregular warfare, as the current term encompassing a wide range of non-traditional threats and military responses to those threats, will continue to be used by the joint force for the foreseeable future. Second, airpower is a term that includes the full range of air capabilities from each of the separate services and is not a label peculiar to the USAF. Third, any substantive change in USAF basic and operational doctrine will affect joint air doctrine since the USAF is typically the author or lead agent for joint, air-centric doctrinal publications. Lastly, recommendations for irregular warfare airpower doctrine should be applicable to, and useable by, the air arms of all the services, not just the USAF.

## **Key Terms**

Prior to a deeper discussion of the nature of irregular warfare and its differences from traditional war, several key terms require definition: doctrine, airpower, irregular warfare, and theory.

Doctrine has various definitions. Some military historians view doctrine as the final step in a three-part developmental progression of ideas that moves from history, through theory, to doctrine. In this construct, history is particular knowledge used as evidence and empirical data for analysis and conclusions. Generalizations from the analysis of history help form the basis for theory, or broad concepts and principles for the conduct of military operations. Doctrine results from sound theory and becomes the armed forces' "common knowledge" for the conduct of war.<sup>8</sup> The USAF provides refinement to this foundation by stating that, "[a]ir and space doctrine is a

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<sup>8</sup> US Army Command and General Staff College, Department of Military History, Microsoft Powerpoint presentation entitled "Introductory Lecture to A699: The Evolution of Military Thought," (Fort Leavenworth, KS: US Army Command and General Staff College, Department of Military History, 2006).

statement of officially sanctioned beliefs, warfighting principles, and terminology that describes and guides the proper use of air and space forces in military operations.”<sup>9</sup>

The US military has various confusing and contradictory classifications for the levels and types of doctrine. This monograph uses the USAF doctrine categories of basic, operational, and tactical, wherein basic doctrine “states the most fundamental and enduring beliefs that describe and guide the proper use, presentation, and organization of . . . forces in military action.”<sup>10</sup> A USAF example of basic doctrine is Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine*; the joint equivalent is a capstone publication such as *Joint Publication (JP) 1, Joint Warfare of the Armed Forces of the United States*. Operational doctrine “describes more detailed organization of . . . forces and applies the principles of basic doctrine to military actions.” Examples of operational doctrine include *AFDD 2-1, Air Warfare* or a joint keystone document like *JP 3-0, Operations*.<sup>11</sup> The third level or category, tactical doctrine, is equivalent in USAF usage to tactics, techniques, and procedures. This level of doctrine is not addressed in this monograph.

While doctrine is somewhat well-defined, airpower is an elusive term. A survey of current joint and USAF capstone and keystone doctrine publications reveals frequent use of the word, but provides no generally accepted definition for it.<sup>12</sup> Noted air theorist and retired USAF Colonel Phillip Meilinger attempted a definition, writing that “Billy Mitchell defined airpower as ‘the ability to do something in the air. It consists of transporting all sorts of things by aircraft from one place to another.’” He compared Mitchell’s definition to a more recent one by British

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<sup>9</sup> US Air Force (USAF), *Air Force Doctrine Document (AFDD) 1, Air Force Basic Doctrine*, (Maxwell Air Force Base, AL: Air Force Doctrine Center, 2003), ix.

<sup>10</sup> USAF, *AFDD 1*, 7-8.

<sup>11</sup> US Joint Staff, *Joint Doctrine Capstone and Keystone Primer*, (Washington, DC: Joint Staff Directorate for Operational Plans and Joint Force Development [J-7], 2001), 91-93.

<sup>12</sup> Ibid.; USAF, *AFDD 1-2, Air Force Glossary*, (Maxwell AFB, AL: Air Force Doctrine Center, 2004); USAF, *AFDD 2-1, Air Warfare*, (Maxwell Air Force Base, AL: Air Force Doctrine Center, 2000); US Joint Staff, *Joint Publication (JP) 3-0, Operations*, (Suffolk, VA: US Joint Forces Command, 2006); and US Joint Staff, *JP 1-02, Department of Defense Dictionary of Military and Associated Terms*, (Washington, DC: Joint Staff Directorate for Operational Plans and Joint Force Development [J-7], 2001 [as amended through 2005]).

Air Marshals Michael Armitage and Tony Mason: “the ability to project military force by or from a platform in the third dimension above the surface of the earth.” Meilinger notes that both definitions are essentially synonymous, expanding them to include not just air (or space) vehicles but also support units, industry, and even ideas on how to employ aircraft in war.<sup>13</sup> Thus, airpower is the collective term for employment of the air instrument in war, and the support, industry, and theory that makes that employment possible.

With airpower defined, the discussion turns to an initial look at irregular warfare’s definition. A possible question may be, why “irregular warfare” vice “counterinsurgency?” This is a reasonable question and speaks to the heart of the current semantics debate occurring within the U.S. armed forces regarding the terminology for conflict that is not traditional, nation-state versus nation-state war. The next section of this chapter deals with these distinctions, while here, the intent is simply an introduction to current irregular warfare definitions.

A survey of current joint and USAF doctrine provides little clarity for the term irregular warfare.<sup>14</sup> The only noteworthy reference is a definition of “irregular forces” from Joint Publication (JP) 1-02, *Department of Defense Dictionary of Military and Associated Terms*: “Armed individuals or groups who are not members of the regular armed forces, police, or other internal security forces.”<sup>15</sup> “Irregular challenges” are defined in the *National Defense Strategy* as “. . . those employing ‘unconventional’ methods to counter the *traditional* advantages of stronger opponents,” and provides examples of “*irregular* methods” as “terrorism and insurgency.”<sup>16</sup> The 2006 *Quadrennial Defense Review Report* provides numerous references to irregular warfare

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<sup>13</sup> Phillip S. Meilinger, introduction to *The Paths of Heaven: The Evolution of Airpower Theory*, by the USAF School of Advanced Airpower Studies (Maxwell AFB, AL: Air University Press, 1997), xi-xii.

<sup>14</sup> USAF, *AFDD 1, AFDD 1-2, AFDD 2-1; and AFDD 2-3.1*; USAF, *AFDD 2-7, Special Operations*, (Maxwell AFB, AL: Air Force Doctrine Center, 2005); US Joint Staff, *JP 3-0*; US Joint Staff, *JP 3-07, Joint Doctrine for Military Operations Other Than War*, (Washington, DC: Directorate for Strategic Plans and Policy [J-5], 1995); and US Joint Staff, *JP 3-07.1*.

<sup>15</sup> US Joint Staff, *JP 1-02*, 278.

<sup>16</sup> DOD, *National Defense Strategy*, 2-3.

(twenty-four in all), but simply restates the *National Defense Strategy* definition of the term.<sup>17</sup>

The U.S. Department of Defense recently added clarity to this definitional maze with publication of its *Irregular Warfare Joint Operating Concept* wherein irregular warfare is “a violent struggle against state and non-state actors for legitimacy and influence over the relevant populations.”<sup>18</sup>

This definition also appears in the latest draft of *JP 1, Doctrine of the Armed Forces of the United States*, strongly implying its institutional acceptance within the U.S. military.<sup>19</sup>

The final key term is theory. Defining theory is important since irregular warfare airpower theory drives the evaluation of doctrine in chapter 3. The simplified definition of theory presented earlier is supported by Paul Reynolds’ “set-of-laws” idea, which states that theory is “the conception of scientific knowledge as a set of well-supported empirical generalizations or ‘laws’ . . .”<sup>20</sup> While the study of history is not scientific in a strict sense, it is common practice amongst military historians and doctrine writers to derive theoretical generalizations and formulate principles from the analysis of historical particulars and their context.

## **Irregular Versus Traditional Warfare**

Even though war has existed since the dawn of humanity, fine academic and practical distinctions in its theoretical study have taken time to develop.<sup>21</sup> Western military thought has focused on the study of regular forces opposing each other on the field of battle, especially in the analysis of wars following the Treaty of Westphalia in 1648 and the nation-state conflicts beginning with the *levée en masse* of the French Revolution. Meanwhile, irregular warfare has

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<sup>17</sup> DOD, *The Quadrennial Defense Review Report*, (Washington, DC: Office of the Secretary of Defense, 2006), 2.

<sup>18</sup> DOD, *Irregular Warfare Joint Operating Concept*, (Washington, DC: Office of the Secretary of Defense, 2007), 4.

<sup>19</sup> US Joint Staff, *JP 1, Doctrine for the Armed Forces of the United States* (revision final coordination draft), (Washington, DC: Joint Staff Directorate for Operational Plans and Joint Force Development [J-7], 2006), I-2.

<sup>20</sup> Paul D. Reynolds, *A Primer in Theory Construction*, (Boston, MA: Allyn and Bacon, 1971), 10.

<sup>21</sup> Martin Van Creveld, *The Art of War: War and Military Thought*, (New York: HarperCollins Publishing, 2000), 20.

been part of human conflict for millennia, but received little academic attention until the late 1800s.<sup>22</sup>

Serious inquiry into irregular conflict began during the European imperial expansions of the last quarter of the nineteenth century when C.E. Callwell, a British Army officer who eventually retired as a Major General and served in various infantry and intelligence posts, published three versions of his book *Small Wars: Their Principles and Practice*, beginning in 1896.<sup>23</sup> Callwell sought to study war as he experienced it on the frontiers of the British Empire, where conflict was usually very different from the regular style of warfare for which he had trained. In his examination, he settled on the term *small war* to denote the unique kind of conflict he observed.<sup>24</sup>

Callwell defined small wars as “all campaigns other than those where both sides consist of regular troops.” These included “campaigns undertaken to suppress rebellions and guerrilla warfare in all parts of the world where organized armies are struggling against opponents who will not meet them in the open field . . .” Finally, “the expression ‘small war’ has in reality no particular connection with the scale on which any campaign may be carried out; it is simply used to denote, in default of a better, operations of regular armies against irregular, or comparatively speaking irregular, forces.”<sup>25</sup>

The great power conflict of the First World War largely erased the Western and U.S. memory of small wars, despite the irregular warfare experiences of officers such as T.E. Lawrence<sup>26</sup> and a spate of new postwar irregular fights across the globe. Numerous irregular conflicts in the interwar period culminated in a seminal doctrinal treatise produced by the U.S.

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<sup>22</sup> Note, for example, that in Clausewitz’s *On War* only a small portion of his 694-page work are devoted to irregular war. Carl von Clausewitz, *On War*, edited and translated by Michael Howard and Peter Paret, (New York: Everyman’s Library, 1993), 578-584.

<sup>23</sup> Douglas Porch, introduction to *Small Wars: Their Principles and Practice (third edition)* by C.E. Callwell, (London: University of Nebraska Press. 1996 reprint [originally published in 1906]), v-vi.

<sup>24</sup> Callwell, *Small Wars*, 21.

<sup>25</sup> Ibid., 21.

<sup>26</sup> Porch, vi-vii.

Marine Corps, the *Small Wars Manual*. That document captured hard-earned knowledge that unfortunately began to erode during the Second World War. Even the decidedly influential Vietnam War experience could not shake the U.S. military establishment from its singular focus on what it knows best: major combat operations involving regular forces.<sup>27</sup> Despite various academic and professional attempts over the past fifty years to refocus conventional U.S. military thought across the whole spectrum of conflict, it took the tragic events of September 11, 2001 to awaken the American defense establishment to the idea that the nation must organize, equip, and train for two types of war: traditional and irregular.

While a few U.S. military thinkers struggled with concepts of insurgency, counterinsurgency, and small wars in the post-Vietnam era, new terminology was developed to address this kind of warfare.<sup>28</sup> In the 1980s it was “low intensity conflict;” in the nineties, “military operations other than war,” or the variation -- operations other than war.<sup>29</sup> Military operations other than war is an especially specious term defined as “Operations that encompass the use of military capabilities across the range of military operations short of war. These military actions can be applied to complement any combination of the other instruments of national power and occur before, during, and after war.”<sup>30</sup> The term has little utility in clarifying small war due to its relegation of “. . . the use of military capabilities across the range of military operations *short of war* . . .” [emphasis mine] The U.S. military appears to have recognized this lack of clarity and is systematically expunging the term from its doctrine.

The latest iteration of this terminological shell game is irregular warfare, distinguished from its ancestors due to institutional promulgation by the highest levels of U.S. military

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<sup>27</sup> Andrew F. Krepinevich, Jr., *The Army and Vietnam*, (Baltimore, MD: Johns Hopkins University Press, 1986), 274-75.

<sup>28</sup> Wray Johnson, “Whither Aviation Foreign Internal Defense?” (*Air and Space Power Journal* 11, no. 1, Spring 1997), 73.

<sup>29</sup> Ronald F. Stuewe Jr., “One Step Back, Two Steps Forward: An Analytical Framework for Airpower in Small Wars,” (thesis, Naval Postgraduate School, Monterey, CA, 2006), 2-3.

<sup>30</sup> US Joint Staff, *JP 1-02*, 338.

leadership evidenced by its initial appearance in the 2004 *National Military Strategy of the United States*, the *National Defense Strategy*, and the *Quadrennial Defense Review*.<sup>31</sup> Whereas earlier U.S. small wars theory and terminology tended to bubble up from below only to eventually appear in some watered-down form within service and joint doctrine, irregular warfare terminology has appeared from the top, and has outpaced joint and service doctrinal revision cycles.

The *Quadrennial Defense Review* lists irregular warfare as one of five emphasis areas requiring development of follow-on “roadmaps.” The report also specifies the current and predicted operational environment: “Although U.S. military forces maintain their predominance in traditional warfare, they must also be improved to address the non-traditional, asymmetric challenges of this new century. These challenges include irregular warfare (conflicts in which enemy combatants are not regular military forces of nation-states); catastrophic terrorism employing weapons of mass destruction (WMD); and disruptive threats to the United States’ ability to maintain its qualitative edge and to project power.” The only remaining U.S. national security challenge presented by the *National Defense Strategy* is the traditional challenge, which the report claims the U.S. dominates. The *Quadrennial Defense Review* “makes adjustments to better capture the realities of a long war [the Global War on Terror] by: . . . giving greater emphasis to the war on terror and irregular warfare activities, including long-duration unconventional warfare, counterterrorism, counterinsurgency, and military support for stabilization and reconstruction efforts.”<sup>32</sup> Finally, the *National Military Strategy* presents

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<sup>31</sup> US Joint Chiefs of Staff (JCS), *The National Military Strategy of the United States of America*, (Washington, DC: Office of the Chairman of the Joint Chiefs of Staff, 2004) 4 and 23; DOD, *National Defense Strategy*, 2-3, and *Quadrennial Defense Review*, passim.

<sup>32</sup> DOD, *Quadrennial Defense Review*, 2-4.



“improving proficiency in irregular warfare” as one of “eight capability areas that ‘provide a transformation focus for the Department [of Defense].’”<sup>33</sup>

Despite the needed resurgence of emphasis on irregular warfare, definitional clarity has been slow to develop. The 1940 U.S. Marine Corps *Small Wars Manual* provides a broader small wars definition than Callwell’s earlier one: “small wars are operations undertaken under executive authority, wherein military force is combined with diplomatic pressure in the internal or external affairs of another state whose government is unstable, inadequate, or unsatisfactory for the preservation of life and of such interests as are determined by the foreign policy of our Nation.”<sup>34</sup> The U.S. Special Operations Command and U.S. Marine Corps, writing under the auspices of the U.S. Secretary of Defense, recently completed the *Irregular Warfare Joint Operating Concept*, a comprehensive inquiry that contains the most current U.S. military definition of irregular war as “a violent struggle among state and non-state actors for legitimacy and influence over the relevant populations.”<sup>35</sup> This definition is a shift from the 1940 *Small Wars Manual* in that it focuses on the “relevant population” instead of the “internal or external affairs of another state.” This is a new distinction from earlier views of irregular conflict. Whereas most scholars and practitioners before viewed small wars as “irregular” due to opposing forces not being “regulars” or using conventional tactics, the DOD’s *Irregular Warfare* states: “What makes [irregular warfare] ‘irregular’ is the focus of its operations -- a relevant population . . .”<sup>36</sup> Thus, DOD has attempted to change the focus of irregular war from the non-state actor adversary to the population that non-state actor and U.S. forces are both trying to affect.

On the face of it, the DOD’s definition appears to lack the detail required to help clarify the full range of irregular activity envisioned. However, the document subsequently delineates

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<sup>33</sup> JCS, National Military Strategy, 23.

<sup>34</sup> US Marine Corps (USMC), *Small Wars Manual*, (Washington, DC: US Government Printing Office, 1940), 1-1.

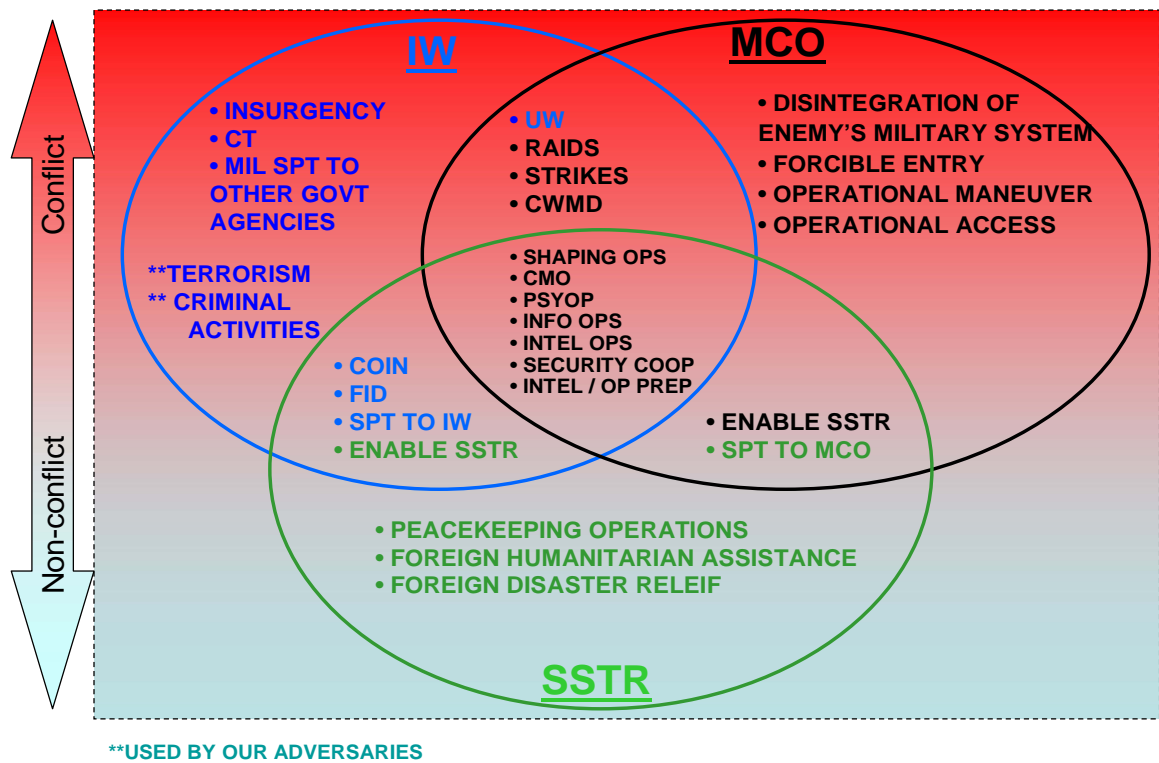
<sup>35</sup> DOD, *Irregular Warfare*, 4.

<sup>36</sup> *Ibid.*, 6-7.

“examples of the range of operations and activities that can be conducted as part of [irregular warfare]: insurgency; counterinsurgency; unconventional warfare; terrorism; counterterrorism; foreign internal defense; stabilization, security, transition, and reconstruction operations; strategic communications; psychological operations; information operations; civil-military operations; intelligence and counterintelligence activities; transnational criminal activities, including narco-trafficking, illicit arms dealing, and illegal transactions, that support or sustain [irregular warfare]; and, law enforcement activities focused on countering irregular adversaries.” This ambitious array of possible activity is simplified by the statement, “at the core of [irregular warfare] are insurgency and counterinsurgency.” It is also important to note that the document recognizes the illegal and ethically questionable nature of some of the listed activities, but presents them as an example of some of the actions used by U.S. adversaries.<sup>37</sup> Figure 1 illustrates the range of irregular warfare activity in relation to conflict intensity and other joint operating concept activities.

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<sup>37</sup> Ibid., 8.



**Figure 1. Joint Operating Concepts Relationships**

Source: DOD, *Irregular Warfare Joint Operating Concept* (Washington, DC: Office of the Secretary of Defense, 2007), 14. (MCO: major combat operations; SSTR: security, stability, transition, and reconstruction)

The key to understanding the U.S. Department of Defense's new irregular warfare construct is the simple division of insurgency and counterinsurgency. U.S. military doctrine has addressed action under the insurgency side through the concept of unconventional warfare. U.S. joint doctrine defines unconventional warfare as "a broad spectrum of military and paramilitary operations, normally of long duration, predominantly conducted through, with, or by indigenous or surrogate forces who are organized, trained, equipped, supported, and directed in varying degrees by an external source. It includes, but is not limited to, guerrilla warfare, subversion,

sabotage, intelligence activities, and unconventional assisted recovery.”<sup>38</sup> Thus, the insurgency part of irregular warfare, known within U.S. doctrine as unconventional warfare, includes guerrilla and partisan operations and any other tactics, such as sabotage or subversion, designed to discredit a rival government in the eyes of their populace. Conversely, counterinsurgency is defined as “those military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat insurgency.”<sup>39</sup> Thus, counterinsurgency is any action that counters insurgent tactics in an attempt to maintain support of the populace for their government including some or all of anti- and counterterrorism, counterguerrilla warfare, counterintelligence, and the application of non-military elements of government power. Counterinsurgency, as will be seen later, has had a difficult time finding a niche in U.S. military doctrine, often consigned as a subset of the vaguely understood mission of foreign internal defense. As such, it has often lost its connection with the other military and non-military activities, such as counterintelligence or law enforcement, that are important for conducting a comprehensive approach to defeating insurgency.

The idea of covering insurgency and counterinsurgency under a single umbrella, irregular warfare, appears to be an acknowledgement by the U.S. military that the two are flip sides of the same coin. Due to an incomplete and often obtuse treatment of counterinsurgency in U.S. doctrine, versus a reasonably well defined path for insurgency (unconventional warfare), this monograph focuses heavily on the counterinsurgency aspect of irregular warfare. However, it is important to always note that irregular warfare involves both aspects, and approaches in one area are at times mutually exclusive to the needs of the other.

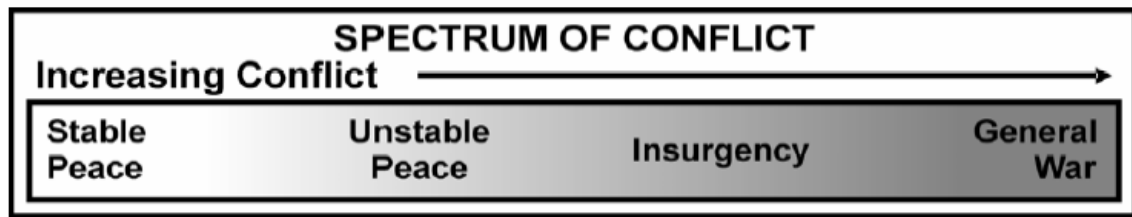
The previous discussion on irregular and traditional warfare and Figure 1 imply the need for greater clarity in defining the spectrum of conflict within U.S. military thinking. Figure 2

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<sup>38</sup> *JP 1-02*, 558.

<sup>39</sup> *Ibid.*, 127.

depicts an excellent representation of the variety of conflict that has been, and likely will be, experienced by the U.S. and her partners.<sup>40</sup>



**Figure 2. The Spectrum of Conflict**

Source: U.S. Army, *Field Manual 3-0, Full Spectrum Operations* (DRAG) (Washington, DC: Headquarters, Department of the Army, 2006), 2-2.

An examination of both Figures 1 and 2 reveals several important points. First, there are significant areas of overlap between the three operating concepts -- MCO, IW, and SSTR -- depicted in Figure 1. Next, major combat operations, mostly conducted within the far right side of Figure 2, constitute no more than one-third of the total types of operations the U.S. can expect to face. Yet, the U.S. military is best prepared, equipped and trained to conduct that less likely one-third of operations. Finally, while Figure 1 aids in the visualization of the relationship of various types of operations and levels of conflict it fails to accurately represent an important fact: irregular operations, and to a lesser extent security and stability operations, can and do occur throughout the spheres depicted in Figure 1 and the continuum represented by Figure 2. Major combat operations are almost exclusively relegated to their third of the Figure 1 spheres and the far right side of Figure 2 where one finds traditional or conventional, state-versus-state warfare.

The recent display of interest in irregular warfare is a positive instance of a top-down conceptual shift. Some political and military thinkers, theorists and writers have espoused for

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<sup>40</sup> The source for this figure, *FM 3-0 DRAG* (doctrinal review and approval group) further develops the depiction throughout the document, specifically in relation to land operations.

years the duality of warfare's typology -- irregular and traditional -- and the rising predominance of irregular warfare over conventional, state on state war.<sup>41</sup> Until recently however, U.S. military institutions and bureaucracies have mostly resisted this notion. Within U.S. military strategic planning circles doctrine typically precedes organizational, training, materiel, and employment changes. This monograph is an attempt to define the airpower doctrine required to better support organizing, equipping, and training air forces to meet the employment challenges of irregular warfare.

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<sup>41</sup> Boot, 348-351; Thomas X. Hammes, "Rethinking the Principles of War: The Future of Warfare," in *Rethinking the Principles of War*, ed. Anthony D. McIvor, (Annapolis, MD: Naval Institute Press, 2005); Krepinevich, 274; Meilinger, xxii; and Roger Trinquier, *Modern Warfare: A French View of Counterinsurgency*, (London: Pall Mall Press, 1964), 3 and 6. Hammes argued less for two types of war than that warfare has evolved into a new phase, called "fourth generation warfare (4GW)," which is principally political, protracted, and networked. The irregular methods of insurgency and guerrilla tactics fit comfortably into the 4GW concept. Trinquier correctly predicted the influence and pervasiveness of what he called "modern war" ("subversive or revolutionary warfare"), although his assertion that traditional warfare "no longer exists" and will never be fought again was an overreach.

## **CHAPTER TWO - REVIEW OF PAST AND CURRENT DOCTRINE**

This chapter reviews past and current irregular warfare airpower doctrine, discussing where irregular warfare airpower doctrine has been and where it is now, in order to establish a baseline for analyzing doctrine. The first section looks at the history of U.S. Army Air Corps, U.S. Army Air Force, U.S. Marine Corps, and USAF doctrine from 1916 to the publication of current doctrine. The second section examines the currently published irregular warfare airpower doctrine.

### **Past Irregular Warfare Airpower Doctrine**

The earliest American use of aircraft against an irregular foe was the U.S. Army's Punitive Expedition to Mexico in 1916 to pursue Francisco "Pancho" Villa. Villa had conducted a raid into Columbus, New Mexico, which killed 17 U.S. citizens and prompted the U.S. government to send Army forces into Mexico to kill or capture him. The 1st Aero Squadron, a unit consisting of eight Curtiss JN-3 biplanes, accompanied General John Pershing's expeditionary force. While there was no specific written guidance or doctrine at the time for the use of aircraft against an irregular foe, Pershing used the squadron to track Villa and pass messages to his forces. Thus, "the first recorded uses of American aircraft in a [counterinsurgency] operation were for reconnaissance and liaison."<sup>42</sup> Although not part of Army Signal Corps doctrine at the time, the applicability of reconnaissance and communications to airpower in irregular warfare execution continues even to this day.

Unfortunately, for the Army Air Service, the Punitive Expedition's brief initial introduction into the roles and uses of airpower in irregular warfare was eclipsed by the fertile

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<sup>42</sup> Donald H. Feld, "Out of the Closet: Counterinsurgency Doctrine for the USAF," (research report, Air War College, Maxwell AFB, AL, 1988), 11-12; and, Corum and Johnson, 11-21.

ground laid for major combat airpower theory by the First World War. Small wars were of little importance in a world that had just embarked on its first truly global war, and which, by all indications, was heading for another. That view, combined with Army Air Corps leaders' desires to ensure that airpower reached its full potential, fomented an interwar environment where "a unique theory of air warfare -- unescorted high-altitude precision daylight bombardment (HAPDB) against the key nodes of an enemy's industrial infrastructure" was developed.<sup>43</sup> While this theory succeeded in producing strategic airpower at a time of great need for the U.S. and the Allies in confronting a traditional foe, it stunted Army Air Corps thinking about small wars.

In the meantime, the U.S. Marine Corps spent much of the interwar period in irregular conflicts in Latin America, principally in Nicaragua.<sup>44</sup> Those two decades of irregular experience culminated with the first publication of the *Small Wars Manual* in 1940. That fifteen chapter and approximately 450-page work detailed various aspects of small wars from strategy to tactics including ground, riverine, and air operations.<sup>45</sup> Chapter IX, Aviation, was the first U.S. military effort to formulate irregular air warfare thinking into doctrine.

The Marine Corps' collective experience and thinking about airpower in irregular warfare in the interwar period resulted in twenty-four pages of doctrine ranging from composition and organization to specific mission types. Most of the writing is tactical doctrine (tactics, techniques, and procedures) but several important doctrinal precepts for the use of airpower in small wars are presented. First, the adversary in small wars is usually of such a "scattered" and "irregular" nature as to present little in the way of normal "air opposition," so "the Marine air force is thus able to concentrate almost entirely on the close support of ground units." Second, the chapter discusses the types of aircraft envisioned with "primary consideration . . . given to reconnaissance types in

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<sup>43</sup> Peter R. Faber, "Interwar US Army Aviation and the Air Corps Tactical School: Incubators of American Airpower," in *The Paths of Heaven: The Evolution of Airpower Theory* by the US Air Force School of Advanced Airpower Studies, (Maxwell AFB, AL: Air University Press, 1997), 186-87.

<sup>44</sup> Boot, 231-252.

<sup>45</sup> *Small Wars Manual*, Table of Contents.



the organization of a small wars air force.” Other important types include combat and transport aircraft. Next, control and command is presented where “normally, all aviation attached to a small wars expeditionary force will operate from the main airdrome under centralized control. However, when distances are great and weather conditions uncertain, it may become advisable to detach aviation units to subordinate commands, to be operated from auxiliary airdromes.”

Typical missions are discussed, the primary being reconnaissance, in which “the skill and training of the observer” is paramount, but also combat support and air transport. The combat support mission, or what today is called close air support, is divided into a number of areas that include fighting, attack, and bombing aviation. Of note is the importance placed on discrimination during attacks, by way of strafing and smaller bombs (less than one thousand pounds), and the idea of “aviation as a mobile reserve.” The air transport section lists many of the modern air mobility missions such as troop and supply transport, airdropping of supplies, and evacuation of the sick and wounded. Noteworthy points are that “the air force, then, should include a much greater percentage of transport aircraft than is required for the normal needs of the air units themselves,” and the implication of austere, forward-operating conditions presented by such passages as “the lack of railroads, improved motor roads, and navigable waterways in some of our probable theaters of operation makes the supply and transportation of troops by air more or less mandatory.”<sup>46</sup>

The 1940 *Small Wars Manual* set a conceptual foundation for airpower in small wars. Air support to ground forces was the primary focus, recommending centralized control of air unless theater size necessitated detachment. There was a heavy emphasis on reconnaissance operations, and typical missions included reconnaissance, combat support (attack with light, small weapons), and air transport into remote conditions. While the Marine Corps small wars experience through 1940 provided doctrine for what might be termed airpower support to counter-irregular warfare,

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<sup>46</sup> Ibid., Chapter IX.

the Second World War began a shift in U.S. military thinking toward air support to irregulars, such as guerrillas and partisans.

The irregular warfare definition presented in chapter one encapsulates insurgent (or irregular) and counterinsurgent (or counter-irregular) activity within a unified irregular warfare domain. In spite of numerous similarities between these two forms of irregular war, there are some distinct differences as well. These distinctions became more apparent as the U.S. military moved into the world of support to irregular forces during the Second World War. This passage describes the shift:

The guerrilla operations of World War II, like all guerrilla operations, were the products of their environment. The conditions that prevailed during World War II, although not ideal, were certainly favorable for the birth and the initial growth of resistance movements. But the resistance movements of World War II could not survive, let alone thrive and grow, without a dependable source that could provide for their critical needs. The needs that had to be satisfied varied from guerrilla movement to guerrilla movement -- some needed leaders, some arms, some supplies, some bombardment, and some needed everything. One thing that did not vary was that whatever the need -- it had to be delivered lest the movement die or, at best, decay. Under such conditions, a secure and dependable means of ingress and egress was essential to the survival of resistance movements as a viable force and consequent threat to the Axis powers. The story of developing and operating just such a means of ingress and egress is the story of airpower and guerrilla warfare in World War II.<sup>47</sup>

U.S. airpower practitioners during the Second World War, prompted by the mission to support Allied partisan forces, devoted action and thought to a somewhat different arena than the interwar Marines, that of supporting irregulars rather than the forces countering them. This resulted in four key airpower contributions to Second World War irregular conflict: “1. the clandestine delivery of leadership elements, supplies, and equipment at times and places mutually agreeable to guerrilla and Allied leaders; 2. the clandestine evacuation of key people and wounded guerrillas from otherwise inaccessible places; 3. the delivery of firepower, by tactical

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<sup>47</sup> Aerospace Studies Institute, Concepts Division, “The Role of Airpower in Guerrilla Warfare (World War II),” (project number AU-411-62-ASI, the Aerospace Studies Institute of Air University, Maxwell AFB, AL, 1962), 233.

strikes against counterguerrilla forces; and, 4. the conduct of diversionary operations to shield guerrilla activities.”<sup>48</sup> In sum, the Second World War irregular airpower experience emphasized: clandestine infiltration and exfiltration of leaders, supplies and equipment; medical evacuation; air strikes; and diversions. Although not codified in formal doctrine, these key elements of airpower involvement in irregular conflict began to shape thinking in the decades following the Second World War.

One scholar of irregular airpower doctrine notes that the trend between the Second World War and the late 1980s was early conceptual generalization, rising to specific guidance in the Vietnam War, then eroding again to virtually nothing by the late eighties.<sup>49</sup> Unfortunately, very little progress in stopping this slide occurred in the 1990s. In his seminal work on the subject of airpower theory and insurgency, retired USAF Colonel and USAF School of Advanced Air and Space Studies professor Dennis Drew illuminates the state of irregular airpower doctrine between 1947 and 1992.<sup>50</sup> Drew divides the forty-one years between the creation of the USAF as a separate service in 1947 and the publication of the 1992 USAF basic doctrinal manual into three periods: the period of protracted revolutionary warfare, 1945-1964; the Vietnam War and its aftermath, 1965-1980; and, unofficial progress and official confusion, 1980-1992.<sup>51</sup>

Official institutional approaches to irregular airpower in the period 1947-1964, such as basic and operational doctrine or organizational change, were mixed and uneven. USAF basic doctrine between 1953 and 1959 ignored the ongoing protracted revolutionary struggles in Southeast Asia and the irregular nature of much of the Korean War. Some operational doctrine addressed irregular ideas, but only in the limited context of the Second World War paradigm of support to partisans.

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<sup>48</sup> Ibid., 235.

<sup>49</sup> Dennis L. Barnett, “The USAF and Low-Intensity Conflict: Evolution of a Doctrinal Void,” (thesis, US Air Force Air Command and Staff College, Maxwell AFB, AL, 1988), 18.

<sup>50</sup> Drew, “U.S. Airpower Theory and the Insurgent Challenge,” 809-832.

<sup>51</sup> Ibid., 812, 818, and 825.

In the early 1960s USAF began to respond to the threat of protracted revolutionary conflict by standing up the 4400th Combat Crew Training Squadron and subsequent Special Air Warfare Center, with the mission to provide aviation advisory and assistance training to foreign airmen combating insurgencies.<sup>52</sup> These events, combined with subsequent deployments of USAF Special Air Warfare airmen to support South Vietnam's counterinsurgency efforts and coupled with the Army Air Forces Second World War irregular experience, began the pigeonholing of irregular warfare into the exclusive realm of special operations, a limitation that continues to vex joint forces to the present day.

The end of the 1947-1964 period saw the U.S. increasingly engaged in Vietnam and unofficial airpower thought increasingly recognized this involvement and its different nature from traditional war.<sup>53</sup> Officially, the period ended with a new publication of USAF basic doctrine, the 1964 version of Air Force Manual (AFM) 1-1. Within that update, the first since 1959, an entire chapter entitled "Employment of Aerospace Forces in Counterinsurgency" developed emerging irregular airpower doctrine. The short two-page chapter initially develops the ideas of insurgency warfare to include definitions, characteristics, and objectives of both insurgents and counterinsurgents, stressing the interagency nature of counterinsurgency to include "those military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat subversive insurgency." Of equal significance, the section delineates the air role in a counterinsurgency as: development of air communications and transportation systems, protection of the civilian populace through air strikes, direct action against insurgent units, airlift providing quick reaction mobility and re-supply, psychological measures such as leaflets and

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<sup>52</sup> Ibid., 816-817; and David J. Dean, *The Air Force Role in Low-Intensity Conflict*, (Maxwell Air Force Base, AL: Air University Press, 1997), 88-97.

<sup>53</sup> Drew, "Airpower Theory and the Insurgent Challenge," 812-815.

loudspeakers, and interdiction of external support.<sup>54</sup> While the connection, if any, is unclear, these concepts all appeared, at least to some degree, twenty-four years earlier in the *Small Wars Manual* except, notably, psychological measures and interdiction.

The second period covered by Drew, from 1965 to 1980, began with the steady increase of U.S. involvement in Vietnam through 1968. Unsurprisingly, in 1967 the USAF published its first operational-level irregular airpower doctrine, *Air Force Manual (AFM) 2-5, Special Air Warfare*. Drew notes that the manual “defined Special Air Warfare as a rubric for the air aspects of psychological operations, counterinsurgency, and unconventional warfare,”<sup>55</sup> thus further cementing the parsing of irregular war into special operations and away from conventional, or traditional, operations. The thirty-two pages of *AFM 2-5*, much like the Marine Corps manual of a quarter-century before, ambitiously addressed over-arching concepts for special air warfare, organization and command, counterinsurgency, unconventional warfare, psychological operations, and tactical air operations in support of special air warfare, including weather support.<sup>56</sup>

*AFM 2-5* represented the first USAF effort at an operational-level look at irregular warfare, which it implicitly saw as “special air warfare,” a catchall for counterinsurgency, unconventional warfare, and psychological operations. It was similar in intent, if not in actual scope, to the Marine Corps *Small Wars Manual*. *Special Air Warfare* viewed airpower’s basic role in counterinsurgency, and by implication unconventional war and psychological operations, as “[providing] advice, training, and assistance to indigenous forces.” It also walked the tightrope that air forces experience to this day between viewing special air warfare as a distinct set of

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<sup>54</sup> USAF, Chapter 6 to *Air Force Manual (AFM) 1-1*, 14 August 1964, reproduced in “The USAF and Low-Intensity Conflict: Evolution of a Doctrinal Void” by Dennis L. Barnett, (thesis, US Air Force Air Command and Staff College, Maxwell AFB, AL, 1988), 30-31.

<sup>55</sup> Drew, “Airpower Theory and the Insurgent Challenge,” 822.

<sup>56</sup> USAF, *AFM 2-5, Special Air Warfare*, (Washington, DC: Department of the Air Force [AFXOPFI], 1967), i-ii.

missions for “special” airmen, now called “special operators,” and a broader mission set wherein “other Air Force tactical and strategic forces augment SAW units to provide air capability, as needed.”<sup>57</sup>

*Special Air Warfare* progressed to a discussion of equipment and personnel requirements. Equipment generally needed to be simple, rugged, and responsive in austere environments, while personnel were to be highly experienced, well-trained area specialists with excellent cultural, language and instructor skills.<sup>58</sup> It then moved on to discuss principles of special air warfare command and control -- emphasizing time-honored USAF tenets such as centralized control, coordination of effort, mobility, and flexibility -- which it stated applied in all cases of counterinsurgency and psychological operations and most cases of unconventional warfare. Interestingly, the manual departed from traditional USAF thinking and mirrored Marine Corps writing, proposing that the situation or environment may warrant the possible detachment or dispersal of air forces in counterinsurgency if enough assets are available to decentralize them.<sup>59</sup>

Finally, the document discussed the three types of special air warfare in detail, notably stressing that counterinsurgency requires an interagency approach.<sup>60</sup> The last section of *AFM 2-5* provided detailed discussion of special air warfare tactical air operations to include close air support, interdiction, assault airlift, reconnaissance, and weather operations.<sup>61</sup>

*AFM 2-5* reiterated many ideas brought forth by the *Small Wars* Manual, by accident if not by design, but nonetheless contemporized irregular airpower doctrine for the 1960s. Relatively new ideas in irregular air thinking included the training and advising of foreign air forces, the use and details of psychological operations, and the codification of a special class of airmen to primarily conduct this type of war, a class that became the foundation for modern

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<sup>57</sup> Ibid., 1-2, 14 and 22.

<sup>58</sup> Ibid., 4-5.

<sup>59</sup> Ibid., 6 and 9.

<sup>60</sup> Ibid., 12-14, 18-21.

<sup>61</sup> Ibid., 24-7

USAF special operations forces. While the manual attempted to encompass conventional air forces to some degree under the special air warfare rubric, especially regarding counterinsurgency, the attempt appears to have failed, as will be shown later. Nonetheless, by early 1967 a substantive body of basic and operational-level irregular airpower doctrine existed within the U.S. military in the form of the Marine Corps *Small Wars Manual* and the USAF *AFM 2-5, Special Air Warfare*, although it is certainly arguable whether or not the Marine manual was well-known or widely read by airmen.

However, this trend toward greater irregular airpower doctrinal foundation and clarity was not to last. Dennis Drew writes:

Unfortunately, the publication of *AFM 2-5* in 1967 did not establish a trend. By September of 1971, when a new edition of Air Force basic doctrine appeared, its final chapter was devoted not to the use of airpower in counterinsurgency, but rather to the broader subject of Air Force special operations. This was yet another new rubric, which was intended to replace “special air warfare” used in the 1967 version of *AFM 2-5*. To add to the confusion, the manual included yet another new term -- “foreign internal defense” -- by which the manual writers meant “counterinsurgency.” In the scant one-and-one-half-page chapter devoted to special operations, foreign internal defense rated only one paragraph. It did, however, reinforce the notion introduced in 1967 that air operations must be closely coordinated with civil actions as well as surface force operations in a coordinated military-civilian campaign to eliminate the causes of popular disaffection and build a sense of national unity.

During the remainder of the 1970s, doctrinal interest in protracted revolutionary conflicts declined, at least in terms of basic doctrine. The basic doctrine manual was republished in January 1975 with only two generalized subparagraphs (one pertaining to special operations, the other to sub-theater and localized conflicts) retained. The same sort of very broad and very generalized treatment of insurgency-related topics carried forward to the 1979 edition.<sup>62</sup>

While outlining the decline of interest in counterinsurgency in the USAF, Drew notes the compartmentalization of the field into special operations and away from the larger conventional military. At the same time, writers began to lose intellectual clarity in addressing irregular war by reducing it from “counterinsurgency” through “special operations” to “foreign internal

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<sup>62</sup> Drew, “Airpower Theory and the Insurgent Challenge,” 823-824.

defense.”<sup>63</sup> This lack of understanding of irregular war and its subsets of insurgency -- to include subversion, terrorism, and guerrilla and unconventional tactics -- and counterinsurgency, continues to this day. It serves to undermine efforts to identify clearly irregular rivals and threats, inhibiting development of a sound strategy to counter them. Such operations are best conducted as a joint and interagency effort, not just by special operations forces, which can be resource-limited and overwhelmed when confronted with a large national insurgency as experienced in Vietnam.

Drew characterizes the period from 1980-1992 as “unofficial progress and official confusion.” He cites numerous examples of airmen reaching “consensus about: the nature of low-intensity conflict, the general outlines of counterinsurgency strategy, the airpower technology required, and the role of airpower in the military portion of a counterinsurgency strategy.”<sup>64</sup> Unfortunately, this hotbed of unofficial intellectual effort did not appreciably penetrate the institutional barriers of the U.S. military.

By 1984, the latest iteration of USAF basic doctrine had all but expunged insurgency discussion except for a limited two-paragraph discussion on special operations. Despite institutional efforts to jump-start this process, no new irregular airpower basic or operational doctrine appeared until the publication in 1990 of an Army-Air Force pamphlet devoted to low-intensity conflict, *Field Manual 100-2 / Air Force Pamphlet 3-20, Military Operations in Low Intensity Conflict*. Unfortunately, the pamphlet was so abstract and broad as to exclude any specifics about airpower in low-intensity conflict except for one sentence in an appendix on counterinsurgency.<sup>65</sup>

There was at least one bright spot, however. In 1992, the USAF published the generational successor to *AFM 2-5* -- *AFM 2-11, Foreign Internal Defense*. This document was

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<sup>63</sup> Johnson, “Whither Aviation Foreign Internal Defense?” 73.

<sup>64</sup> Ibid., 826-829.

<sup>65</sup> Ibid., 829-830.



USAF's operational doctrine for what had become the accepted term for counterinsurgency, foreign internal defense. As Drew notes, while that document contained mostly operational doctrine several passages transcended operations and dealt with basic airpower thinking at the first principles, theoretical level:<sup>66</sup>

Where ground lines of communication cannot be established and maintained because of terrain or enemy presence, aerial logistic and communications networks carrying information, supplies, and services to civilian elements establish a critical link between the government and the population.

Insurgents generally possess no air capabilities . . . [and] have no heartland, no fixed industrial facilities, and few interdictable LOC [lines of communication] . . . Their irregular forces are deployed in small units that . . . usually present poor targets for air attack. In such cases, air support for security and neutralization should be used primarily to inform, deploy, sustain, and reinforce surface elements of the internal security force.<sup>67</sup>

These passages distill airpower's role in irregular conflict as it had developed to that date to the bare minimum in the areas of counterinsurgency, counterterrorism, and securing of a population from subversion and lawlessness. It depicts an important, albeit limited, supporting role for airpower in arenas where achieving effects against "traditional" airpower targets is difficult since insurgents "have no heartland, no fixed industrial facilities, and few interdictable LOC." In contrast to this dramatic departure from airpower's historically target-centric philosophy was the traditional wisdom espoused in the 1992 version of USAF basic doctrine: "Any enemy with the capacity to be a threat is likely to have strategic vulnerabilities susceptible to air attack."<sup>68</sup> For irregular war, this may be the case when U.S. forces are supporting insurgency (unconventional warfare), or when irregulars opposed by the U.S. are receiving external support that can be interdicted or strategically targeted. However, this is not true in all, or even most, cases when U.S. forces are engaged in countering operations such as

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<sup>66</sup> Ibid. 830.

<sup>67</sup> USAF, *AFM 2-11, Foreign Internal Defense*, 1992, page 9-10, para. 3-3b, in Drew, "Airpower Theory and the Insurgent Challenge," 830.

<sup>68</sup> Drew, "Airpower Theory," 831.

counterinsurgency. Even more disturbing for proponents of irregular warfare thinking, the 1992 revision of the USAF basic doctrinal manual quoted above completely eliminated any discussion of protracted revolutionary warfare in its text.<sup>69</sup> Thus, the post-Vietnam period ending around 1992 concluded with no official basic doctrine for irregular airpower and an ambiguously entitled operational doctrine -- foreign internal defense -- that spoke more to a select segment of airmen, special operators, than to the wider airpower audience.

The 1990s to the present represents a period characterized by increasing lack of clarity regarding irregular warfare. The almost unprecedented tactical, and to some degree operational, success of U.S. and coalition forces over the Iraqi military in the 1991 Gulf War encouraged intellectual exploration within the U.S. defense establishment toward exploitation of what some perceived to be a revolution in military affairs<sup>70</sup> and away from addressing the theoretical and doctrinal issues of the full spectrum of warfare. Within the realm of airpower doctrine for irregular warfare this meant a continued slide in official appreciation of insurgency, counterinsurgency, and revolutionary conflict.

*Air Force Doctrine Document (AFDD) 1, Air Force Basic Doctrine*, published in 1997 continued the trend established by the 1992 version: no direct reference to insurgency or counterinsurgency, but instead limited allusions to those forms of conflict in short discussions of military operations other than war, nation assistance, special operations, and foreign internal defense. The first level of USAF operational doctrine, *AFDD 2, Organization and Employment of Aerospace Power*, 1998, made no specific mention of the type of war it addressed, leaving the reader to assume that the types of war that airmen (at least USAF personnel) could expect were reflected within the basic doctrine document.<sup>71</sup>

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<sup>69</sup> Ibid., 831.

<sup>70</sup> Williamson Murray, "Clausewitz Out, Computer In: Military Culture and Technological Hubris," (*The National Interest*, Summer 1997, accessed online at [http://www.findarticles.com/p/articles/mi\\_m2751/is\\_n48/ai\\_19657028](http://www.findarticles.com/p/articles/mi_m2751/is_n48/ai_19657028) on 28 November 2006), 5-6.

<sup>71</sup> Doucette, 62-64.

The first specific mention of irregular types of war in operational air doctrine during this time was *AFDD 2-3, Military Operations Other Than War*, 1996. Keeping with the trend among the services to designate anything other than traditional, conventional war as an “operation other than war,” this document focused on counterinsurgency as a subset of foreign internal defense. It also continued advocacy of the airman’s primary role in foreign internal defense as training, advising, and providing assistance to a host nation as part of a greater internal defense and development plan. Even while *AFDD 2-3* touched on these issues, the document largely portrayed military operations other than war as the contingency, humanitarian, and peace operations prevalent in the 1990s instead of the low-intensity conflict perception of the eighties.<sup>72</sup>

The 1998 *AFDD 2-7.1, Foreign Internal Defense* was essentially a revision on the theme of the 1992 version. *AFDD 2-7.1* focused on two areas: U.S. aviation support, advice, and assistance to foreign nations under the umbrella of an internal defense and development scheme, and a foundational section “for the thought process of combating insurgencies” in an appendix entitled “Insurgency and Counterinsurgency.”<sup>73</sup>

Combat aviation advice and training have been considered an integral part of any comprehensive approach to deal with irregular challenges since the Second World War. The idea of host nation aviation assistance and training largely began in 1961 in the Vietnam War with the “Jungle Jim” program and Operation FARMGATE. While the ultimate value of FARMGATE may be debatable,<sup>74</sup> the USAF accepted the importance of host nation assistance, at least doctrinally, from the 1967 publication of *AFM 2-5* onward. Although USAF aviation advisory organizations waxed and waned through the years -- eventually culminating with the creation of

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<sup>72</sup> Ibid., 64.

<sup>73</sup> Ibid., 65.

<sup>74</sup> Edward A. Kostelnik Jr., “Air Commandos and Counterinsurgency in Southeast Asia: the Good, the Bad, and the Ugly,” (unpublished student paper for course SO3880, Naval Postgraduate School, Department of Defense Analysis, Monterey, CA, 2005), 16-17.

the current 6th Special Operations Squadron and possible plans for further expansion<sup>75</sup> -- a doctrinal basis remained strong from the original publication of *AFM 2-5* through to current foreign internal defense publications.

An unhappy by-product of USAF's slow but steady development of combat aviation advisory doctrine and organization since the early 1960s has been a tendency to view that specialized mission area as synonymous with an institutional response to irregular war. Foreign internal defense, and the special operations forces that conduct it, came to represent the airman's response to military operations below the level of traditional major combat operations, with the subconscious relegation of all responsibility for the conceptualization and conduct of war in that realm to those special operations forces solely. "The standup of [United States Special Operations Command] in 1987, and the concomitant transfer of each services' special operations components to [that command], further reinforced the divide between what is considered 'special' versus 'conventional.' This, in effect, allowed the three services to take a pass on doctrine, organization, and training for 'special' activities, relegating this to [U.S. Special Operations Command's] sole purview."<sup>76</sup>

Joint and sister service irregular warfare doctrine in the nineties was either highly generalized, in the case of joint publications, or specific to land and surface operations, as was the case for U.S. Army and Marine Corps documents. As should be expected of services that have seen considerable historical involvement in small wars for almost two centuries, the level of detail in Army and Marine manuals regarding counterinsurgency and unconventional warfare was

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<sup>75</sup> In fiscal year 2007, the 6th SOS will add 120 active duty billets, according to Lt Col Robert D. Sagraves, USAF (Director's Action Group, Directorate of Strategic Planning, Headquarters USAF, the Pentagon), personal e-mail to author, January 2007. For further on the development of combat aviation advisory units in the USAF see Richard D. Newton, "Reinventing the Wheel: Structuring Air Forces for Foreign Internal Defense," (report no. AU-ARI-CPSS-91-1, Center for Aerospace Doctrine, Research, and Education, Maxwell AFB, AL: Air University Press, 1991); Alan J. Vick, et al., "Airpower in the New Counterinsurgency Era: The Strategic Importance of USAF Advisory and Assistance Missions," (Santa Monica, CA: RAND Corporation, Project Air Force, 2006), especially Chapter 6; and Johnson, "Whither Aviation Foreign Internal Defense?"

<sup>76</sup> Sagraves, personal e-mail to author, January 2007.

very high. However, this level of detail failed to extend to doctrine for the employment of their aviation arms in irregular conflicts.<sup>77</sup> This dearth of irregular airpower doctrine within Army and Marine manuals would change in the next period, 1998 to the present, especially with the renewed interest in irregular warfare theory and practice brought about by the events of September 11, 2001 and subsequent global U.S. military involvements.

## **Current Irregular Warfare Airpower Doctrine**

The 118 pages of the current *AFDD 1, Air Force Basic Doctrine*, contain no reference to irregular warfare, small wars, insurgency or counterinsurgency, or guerrilla techniques, only one substantive reference to military operations other than war, and scant reference (five, in all) to terrorism or counterterrorism.<sup>78</sup> Within Chapter Two of that document (Policy, Strategy, Tactics, and War), there is no mention of the lower and middle ranges of conflict that are often characterized by irregular war. Instead, the chapter's section defining war deals largely with a traditional portrayal of warfare as a sequential phasing of operations to halt an invasion, build-up combat power, and then conduct a ground-centric counteroffensive. The manual continues by addressing enemy asymmetric attempts to offset U.S. advantages, proposing a "new view of conflict" as an answer to these asymmetrical efforts. In this view, air and space power is an alternative "to the annihilation and attrition options" including the surprising assertion that air and space forces possess "the ability to coerce and compel adversaries in [military operations other than war]."<sup>79</sup>

The first two levels of operational USAF airpower doctrine are *AFDD 2, Operations and Organization*, and *AFDD 2-1, Air Warfare*. *AFDD 1* "presents the fundamentals of air and space power" while *AFDD 2* "is the companion to *AFDD 1* and . . . describes how the US Air Force

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<sup>77</sup> Doucette, 71-72.

<sup>78</sup> USAF, *AFDD 1*.

<sup>79</sup> *Ibid.*, 15-18.

organizes and employs air and space power at the operational level across the range of military operations.”<sup>80</sup> *AFDD 2*’s 173 pages is similarly devoid of irregular warfare content; there is no mention of irregular warfare, irregulars, small wars, or military operations other than war, only one reference to guerrillas (and that in the context of special operations), and one reference each for insurgency and counterinsurgency.<sup>81</sup> The mention of insurgency and counterinsurgency are only within the context of a list of possible contingency and crisis response operations but without substantive discussion of those operations.<sup>82</sup> There are nine references to terrorism, the most telling of which is the following passage from the Homeland Defense section of the Operations chapter: “Future missions may involve the employment of ‘traditional’ capabilities in nontraditional ways against such asymmetric threats as terrorism.”<sup>83</sup> Ironically, despite current U.S. involvement in two protracted irregular wars, unconventional conflict approaches like insurgency and counterinsurgency barely merit mention as contingency or crisis operations, and the application of traditional airpower in counterterrorism is seen as a possible “future” mission.

While a significantly older document, the next level of operational USAF air war doctrine, *AFDD 2-1*, better attempts to adequately address irregular war than the two higher levels. *AFDD 2-1, Air Warfare*, “provides a basis for understanding, planning, and executing air warfare.”<sup>84</sup> The doctrinal distinctions between *AFDD 2* and *2-1* are often blurry, even more so now that *AFDD 2* represents the first level of USAF operational doctrine, extending its discussion much deeper into operations and planning than previous versions. Until revision of *AFDD 2-1*, it is easiest to look at that manual as the stage-setting doctrinal document for the air half of air and space warfare. This understanding of USAF operational doctrine delineations is consistent when

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<sup>80</sup> USAF, *AFDD 2, Operations and Organization*, (Maxwell AFB, AL: Air Force Doctrine Center, 2006), foreword.

<sup>81</sup> Ibid.

<sup>82</sup> Ibid., 25.

<sup>83</sup> Ibid., 26.

<sup>84</sup> USAF, *AFDD 2-1*, i.

their nomenclature is reviewed. *AFDD 2-1* is *Air Warfare*; its subordinate operational doctrines elaborate on air-centric USAF functions and are numbered as a subset of a larger whole (e.g., *AFDD 2-1.3, Counterland Operations*). Other primary operational documents, and their subordinate expansions, continue with this style, such as *AFDD 2-2, Space Operations*, or *AFDD 2-7, Special Operations*. Paradoxically, areas like special operations or air mobility (*AFDD 2-6, Air Mobility Operations*) are air-centric and might logically fall under the umbrella of *AFDD 2-1*. The fact that they do not speaks volumes about USAF's cultural bias toward air superiority, strategic bombing, and interdiction<sup>85</sup> and their application against traditional threats in conventional state-versus-state conflict.

Notwithstanding its shortcomings, *AFDD 2-1* presents the best USAF doctrinal treatment of irregular concepts, outside of military operations other than war or foreign internal defense documents, since the 1967 *AFM 2-5*. The last section of Chapter One of *AFDD 2-1*, entitled "Examples of Air Warfare," attempts to illustrate "several different types of warfare" including "forced entry, decisive halt, global conflict, and guerrilla warfare."<sup>86</sup> The first two paragraphs of the short guerrilla warfare segment speak for themselves:

While sometimes limited enough to qualify as a military operations other than war (MOOTW), guerrilla warfare can also be considered true warfare when the level of violence is high enough. This was the case for operations in South Vietnam during the Vietnam War, to cite one example. Aerospace power can be used effectively in guerrilla warfare but will often be employed in either a supporting role or some other form of operation that differs from the conventional application of force against "traditional" targets. A guerrilla enemy is typically equipped with light weapons, often of relatively low technology. Air superiority will not normally be challenged; enemy air defense weapons often consist solely of light antiaircraft guns and shoulder-launched SAMs. On the other hand, the enemy may enjoy support in the local populace, and disrupting the enemy's support base through physical means may prove difficult. Although the level of information sophistication of the enemy may vary greatly from one region to another, it is becoming increasingly easy for small units in remote locations to access data worldwide.

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<sup>85</sup> Benjamin Franklin Cooling, introduction to *Case Studies in the Development of Close Air Support*, edited by Benjamin Franklin Cooling, (Washington DC: United States Air Force Office of Air Force History, 1990), 1.

<sup>86</sup> *AFDD 2-1*, 28-33.

As with all military operations, aerospace power success in guerrilla warfare requires a thorough understanding of the military and national objectives and strategy. The character and scope of aerospace operations will directly depend on the objectives they support. Under some circumstances, airlift may represent the bulk of the air component's contribution to the war effort, providing mobility and resupply to ground forces operating in remote areas. Special forces airpower may play a large role in guerrilla warfare, especially for counterinsurgency operations. [Information operations] such as [psychological operations] and [intelligence, surveillance, and reconnaissance] are uses of aerospace forces that may also play a critical role in guerrilla warfare.<sup>87</sup>

Despite one more label for what has variously been known as small wars, counterinsurgency, revolutionary war, low-intensity conflict, and military operations other than war, these guerrilla warfare paragraphs succinctly and accurately capture almost 85 years of thought about airpower in irregular warfare. Of note are the differences between irregular and traditional conflict and the generally supporting role of airpower in the former, the likely lack of a challenge to air superiority, the difficulty in physically attacking popular support for guerrillas, and the principal roles for airpower: airlift, special [operations] forces, and information operations including psychological operations and intelligence, surveillance, and reconnaissance.

Current USAF basic, and the first two layers of operational, doctrine present limited discussion and insight into irregular war, with the exception of the excellent, if short and likely incomplete, treatment in *AFDD 2-1*. Consequently, a survey of remaining USAF operational doctrine relevant to this study, searching for the words irregular, guerrilla, counterinsurgency, small war(s), low-intensity conflict, and military operations other than war, exposed highly uneven results. Current versions of *AFDDs 2-1.1 (Counterair Operations)*, *2-1.2 (Strategic Attack)*, *2-6 (Air Mobility Operations)*, *2-8 (Command and Control)*, and *2-10 (Homeland Operations)* contain none of the search words or concepts except non-substantive treatments, such as in a list of acronyms or a generic glossary. Despite numerous doctrinal mentions in the past of the importance of airlift in irregular conflict, no mention of that type of war or its

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<sup>87</sup> Ibid., 28-29.



forebears even appears in the 122 page USAF operational air mobility doctrine. Similarly, it is surprising that an entire publication devoted to protecting the U.S. homeland (*Homeland Operations*), generated by the terrorist attacks of September 11, 2001, not only makes no mention of the search terms but also contains no reference to terrorists or terrorism.<sup>88</sup>

Most of the remaining documents surveyed contain at least one of the search terms, but only deal with them superficially. *AFDD 2-1.9, Targeting*, contains a brief sentence on the importance of an effects-based approach to “non-kinetic” operations like counterinsurgency and another on the usefulness of target tracking to provide “point-of-origin” targeting in counterinsurgency campaigns like Iraq.<sup>89</sup> *AFDD 2-5, Information Operations* simply states: “Air Force [information operations] may be employed in non-crisis support or military operations other than war (MOOTW) such as humanitarian relief operations (HUMRO), noncombatant evacuation operations (NEO), or counterdrug support missions where Air Force elements are subject to asymmetric threats that could hinder operations or place forces at risk.”<sup>90</sup> USAF’s electronic warfare operational doctrine contains one brief mention of military operations other than war, but does not expand on that type of conflict or specify how electronic warfare might be employed in it.<sup>91</sup> Finally, Air Force operational doctrine for intelligence, surveillance, and reconnaissance operations, arguably one of the most important airpower contributions to irregular warfare, contains only a thin paragraph stating that such functions are vital in military operations other than war because they provide “near-real time” information critical to assessment.<sup>92</sup> Many of the operational doctrine publications listed above lack meaningful content, other than the

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<sup>88</sup> USAF, *AFDD 2-6, Air Mobility Operations*, (Maxwell AFB, AL: Air Force Doctrine Center, 2006); USAF, *AFDD 2-10, Homeland Operations*, (Maxwell AFB, AL: Air Force Doctrine Center, 2006); USAF, *AFDD 2-1.2, Strategic Attack*, (Maxwell AFB, AL: Air Force Doctrine Center, 2003); USAF, *AFDD, 2-1.1, Counterair Operations*, (Maxwell AFB, AL: Air Force Doctrine Center, 2002); and, USAF, *AFDD 2-8, Command and Control*, (Maxwell AFB, AL: Air Force Doctrine Center, 2001).

<sup>89</sup> *AFDD 2-1.9, Targeting*, (Maxwell AFB, AL: Air Force Doctrine Center, 2006), 18 and 52.

<sup>90</sup> *AFDD 2-5, Information Operations*, (Maxwell AFB, AL: Air Force Doctrine Center, 2005), 27.

<sup>91</sup> *AFDD 2-5.1, Electronic Warfare*, (Maxwell AFB, AL: Air Force Doctrine Center, 2002), 30.

<sup>92</sup> *AFDD 2-5.2, Intelligence, Surveillance, and Reconnaissance Operations*, (Maxwell AFB, AL: Air Force Doctrine Center, 1999), 7.

obvious, and do not address deeper concepts and issues relating to airpower's role in irregular conflict.

One of the latest USAF operational doctrines, *AFDD 2-1.3, Counterland Operations*, published in September 2006, has one of the best, although incomplete, treatments of irregular warfare within current Air Force basic or operational doctrine. Two entire paragraphs within Chapter Five, "Conducting Counterland Operations," are devoted to an exploration of the topic:

Unless specifically stated otherwise, Air Force doctrine applies to the full range of military operations. Irregular warfare, as of the date of this document, is not defined in Air Force or Joint publications. If it is to follow the concept for irregular *forces* defined in [Joint Publication] 1-02, irregular warfare may be defined as warfare performed by armed individuals or groups who are not members of the regular armed forces, police, or other internal security forces. Irregular warfare is not urban warfare, and may or may not be conducted in that environment. Because they share similar challenges, the misuse of terminology is easy to make. Like urban warfare, irregular warfare will likely have increased levels of deception, proximity and confusion with noncombatants, restrictive rules of engagement, and reduced ability to mass forces upon the enemy. In irregular warfare, technologically superior forces can be challenged by an elusive adversary that refuses to mass, and adapts to target the superior force asymmetrically. The primary distinction to be drawn is that irregular *warfare* is conducted by irregular *forces*. Irregular warfare includes a wide variety of operations and activities that occur either in isolation or within traditional types of operations (see AFDD 2).

Within irregular warfare, there are two general approaches: waging irregular warfare (primarily offensive in nature) and countering irregular threats (primarily defensive in nature). While they appear to represent two opposite ends of the spectrum, they do share similarities: they both include protraction, intertwining military and non-military methods, participation by violent individuals and groups that do not belong to the regular armed forces or police of any state, and a struggle for control or influence over, and the support of, the host population.<sup>93</sup>

Within the two short paragraphs quoted above one can view a microcosm of the current issues regarding the use of airpower in irregular warfare. Important ideas include the lack of top-level doctrinal definitional clarity,<sup>94</sup> irregular forces use of asymmetry to offset the technological

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<sup>93</sup> *AFDD 2-1.3, Counterland Operations*, (Maxwell AFB, AL: Air Force Doctrine Center, 2006), 83.

<sup>94</sup> Although this issue is being rapidly addressed through the recent publication of the *Irregular Warfare Joint Operating Concept* and the impending release of a revised *JP 1, Doctrine of the Armed Forces of the United States*.

superiority of traditional foes, the dichotomy of preparing to wage irregular conflict and also counter it, the likelihood of conflict protraction, the importance of non-military elements, and the need for support of the host population.

The first point in USAF operational doctrine where any ideas about irregular warfare were prominent was once *AFDD 2-3, Military Operations Other Than War*. For inexplicable reasons this document was rescinded at some point in 2006 without replacement.<sup>95</sup> However, the USAF doctrine center is, as of May 2007, rapidly developing a follow-on publication slated for release in the summer of 2007.<sup>96</sup>

Pending official publication of its successor, *AFDD 2-3* still serves as a measure of USAF thinking with respect to irregular warfare at the operational level. *AFDD 2-3*, as its title shows, dealt with the popular 1990s expedient military operations other than war, a category into which the U.S. military apparently threw everything not dealing specifically with traditional war. Consequently, a quick scan of the volume's table of contents reveals such diverse mission areas as enforcing sanctions, combating terrorism, peace operations, and support to insurgency.<sup>97</sup> The document is, in fact, so broad as to dilute any meaningful content from many important operations. Certainly, it buries irregular warfare concepts, such as counterinsurgency, so deep within definitional and doctrinal layers as to strip them of clarity, importance, and substance.<sup>98</sup>

Nonetheless, *AFDD 2-3* did provide some important contributions to the historical body of irregular airpower doctrine. First, it defined, in a limited sense, the USAF role in combating terrorism, differentiating between the subsets of anti-terrorism and counterterrorism, with the

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<sup>95</sup> Kenneth Beebe, "The Air Force's Missing Doctrine: How the US Air Force Ignores Counterinsurgency," (*Air and Space Power Journal* 20, no. 1, Spring 2006): 29 and 33.

<sup>96</sup> Sagraves, personal e-mail to author, January 2007. This doctrine document is tentatively entitled *AFDD 2-3, Irregular Warfare*, and is billed as a completely new treatment of the subject than its predecessor, *Military Operations Other Than War*.

<sup>97</sup> *AFDD 2-3, Military Operations Other Than War* (rescinded), (Maxwell AFB, AL: Air Force Doctrine Center, 2000), iii.

<sup>98</sup> Beebe, 29 and 33.

former being mostly a force protection issue and the latter involving the full range of air and space power functions such as air mobility and counterland.<sup>99</sup>

Second, the rescinded document explicitly laid out the USAF approach to counterinsurgency that began its evolution with the coining of the term foreign internal defense late in the Vietnam War:

Air Force units routinely conduct [foreign internal defense] operations which support a host-nation's fight against lawlessness, subversion, or insurgency. *US military involvement in [foreign internal defense] focuses on counterinsurgency support to defeat an internal threat attempting to overthrow an established government.* This is accomplished by containing existing insurgent threats and by improving the conditions that prompted the insurgency. Successful counterinsurgents realize that the true nature of the threat to the established government lies in the people's perception of their government's inability to solve important economic and social problems. Counterinsurgency uses overt and covert methods in an integrated internal defense and development strategy. This strategy focuses on building viable political, economic, military, and social institutions that respond in a timely manner to the needs of society. At the direction of the [National Command Authority], the US military can provide advice, logistics, and training, but does not normally provide combat forces. Several Air Force units, for example, provided advisory support to the successful El Salvador counterinsurgency in the 1980s. The likelihood of a successful conclusion to an operation is increased by personnel who are trained and qualified in these operations. Such training includes language skills, cross-cultural communications, and area orientation. Although almost all Air Force units can support these operations, Air Force special operations units routinely train to conduct this mission.<sup>100</sup>

Thus, a clear description of counterinsurgency theory had emerged again in USAF operational doctrine but was unfortunately ensconced under the nation-building and foreign internal defense roles for special operations forces. The document also noted that foreign internal defense is explained in further depth in another volume, which this study looks at shortly.

Finally, *AFDD 2-3* also addressed support to insurgency:

An insurgency is an organized movement aimed at the overthrow of an existing government through the use of subversion and armed conflict. Insurgency usually occurs when it is assumed that change within the existing system is not possible and therefore radical change in political control is necessary. Insurgency normally requires extensive use of covert methods. The

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<sup>99</sup> *AFDD 2-3*, 16-17.

<sup>100</sup> *Ibid.*, 27 and 28.

insurgent leadership stresses and exploits issues that the key social groups support. At the same time, it neutralizes groups supporting the established government and seeks at least passive support from society at large. The United States may support an insurgency against a regime threatening American interests. When this occurs, different types of aerospace power (for example, air mobility or reconnaissance) may be used to directly support the insurgency. The Air Force does not normally seek to engage in combat during an insurgency, but advice, logistics assistance, and training may be provided to the insurgents when directed by the NCA.<sup>101</sup>

The insurgency paragraph reproduced above accurately discussed the concept, but interestingly did not tie airpower support either to unconventional warfare -- where support to insurgency typically lies within U.S. doctrine -- or special operations forces, who are principally concerned with unconventional warfare within the U.S. military. Within the document as a whole, both insurgency and counterinsurgency are classified under operations not involving combat, strengthening the USAF institutional view that these operations are not a part of true warfare, at best handled as a training or support mission.

The survey of current USAF operational doctrine ends with the foreign internal defense and special operations forces documents. *AFDD 2-3.1, Foreign Internal Defense*, is a useful document for its intended purpose, but is limited in its scope concerning irregular warfare. The document defines foreign internal defense as “participation by civilian and military agencies of a government in any of the action programs taken by another government to free and protect its society from subversion, lawlessness, and insurgency.” Several phrases labeled by the USAF as “Foundational Doctrine Statements” continue to spell out foreign internal defense’s limitations: “Ultimately, [foreign internal defense] efforts are successful if they preclude the need to deploy large numbers of United States military personnel and equipment; Air Force [foreign internal defense] can also establish a US Air Force presence, build rapport, exercise integration, and build a foundation for future operations; Air Force [foreign internal defense] operations are aimed

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<sup>101</sup> Ibid., 29.

primarily at developing and sustaining host-nation airpower capabilities.<sup>102</sup> While foreign internal defense might be irregular in nature, what the USAF envisions seems specifically geared toward the internal defense of a partner host nation, ignoring potential irregular warfare mission areas such as counterinsurgency during an occupation, unconventional support of an insurgency, and anti-/counterterrorism. To be fair, *AFDD 2-3.1* does address the dangers of regional terrorism becoming global -- thereby threatening the security and stability of the U.S. and its allied or coalition partners -- but only in the context of how foreign internal defense can reduce the conditions in a host nation that allow terrorism to take hold and grow, not in a broader global anti-/counterterror effort.<sup>103</sup>

*AFDD 2-3.1* does expand on the beginnings of irregular (or at least counterinsurgency) airpower theory introduced in its ancestor, the 1994 *AFDD 2-11*, when it discusses how USAF foreign internal defense “should be designed to support and reinforce the host nation’s [internal defense and development] strategy”<sup>104</sup>:

The principal weight of the air and space power effort should support the overall internal defense effort. Where airpower is applied, it should create effects on one or more of the insurgent movement’s centers of gravity (COGs). Determining an insurgent’s COGs may be challenging, as many of the things generally thought of as COGs may not exist. Leadership may not be easily identifiable or accessible and will probably have a limited fixed-support structure. Their irregular forces are often deployed in small units that find easy concealment in rural or urban terrain and sometimes within civilian society itself. The legitimate government and insurgents often share a common COG—the civilian population. To be successful, the insurgency normally relies on the population for some or all of its support. An insurgent strategy tends to be persuasive. The legitimate government may face not only a military struggle, but also a political and socioeconomic struggle as well. Consequently, airpower should enhance the capability of the government and help gain civilian population support. A COG analysis should reveal sources of social, economic, or political fragmentation exploited by the insurgents; leadership functions; sources of the “will to fight,” and the strategies that obtain popular, economic, and/or logistical support that sustains the insurgent or terrorist force and enables it to act. Air Force [foreign internal defense] advisors, planners, and analysts should be aware of how smaller, more indigenous, and often less intense

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<sup>102</sup> *AFDD 2-3.1*, vii.

<sup>103</sup> *Ibid.*, 7-9.

<sup>104</sup> *Ibid.*, 15.

operations differ from more conventional military operations. Any negative impact on the civilian population may provide further legitimacy to the insurgent movement. Air Force FID operations should be planned to support the [internal defense and development] priorities of a nation.

Airpower can contribute most effectively to security and neutralization when it functions as an integrated, joint component of the overall internal defense effort. It is least effective when employed unilaterally as a substitute for ground maneuver or long-range artillery. In many instances, airpower can be exploited to greatest advantage by emphasizing surveillance and logistics mobility over firepower. Where insurgents are unwilling to concentrate their forces and are integrated within the civilian population, they present poor targets for air attack. The application of firepower, an errant bomb, loss of civilian life, or damage to civilian property can be used against the government and provide increased support for the insurgents. Air support for security and neutralization should be used primarily to inform, deploy, sustain, and reinforce surface elements of the internal security force. The emphasis on surveillance and mobility also applies to military operations performing counterdrug activities and to government actions suppressing terrorism and aggravated forms of civil disorder. For instance, where friendly lives and property are at risk from insurgent attack, airpower can serve as a component of a coordinated joint security and neutralization effort aimed at creating a safe environment for development programs which, in turn, promote and sustain mobilization. Airpower can demonstrate to the population that the legitimate government is in control

Where [internal defense and development] actions are focused on socioeconomic development and mobilization, air and space resources are employed “administratively” in support of infrastructure development and mobilization. These roles are principally logistics and communications efforts to establish government influence and control in contested areas of the country. Using airpower in these roles enhances the host-government’s ability to focus on political and economic solutions to the crisis. To achieve its strategic aims, a host government should establish and maintain effective administration and control on the ground, often in contested areas. Host-government presence and persistence—crucial aspects of administering in contested areas—can be supported by air and space power. At the same time, air and space power’s flexibility can help government forces achieve rapid concentration of effort from great distances and overcome terrain features. As the government brings all four typical [internal defense and development] tasks into play, air and space power is used to create synergies among various defense and development initiatives.<sup>105</sup>

The excerpt above is an updated synopsis of airpower’s theoretical roles in counterinsurgency efforts, to include the classic identification of the civilian populace as an

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<sup>105</sup> Ibid., 16-17.

insurgency's center-of-gravity,<sup>106</sup> the importance of using airpower "as an integrated, joint component of the overall internal defense effort," the primacy of air mobility, reconnaissance, and communications over strike, and air and space power's unique presence and persistence providing synergy to the overall effort. The above excerpt, along with Appendix A to *AFDD 2-3.1*, could serve as the beginning of an expanded theory and doctrine for airpower in irregular warfare, but these important ideas are buried in a third-tier operational doctrine document unlikely to be read by anyone not specifically tasked to the foreign internal defense mission. Yet, as stated within *AFDD 2-3.1*, "[Foreign internal defense] is a principal mission assigned by law to United States special operations forces."<sup>107</sup> Thus, many, if not most, within the U.S. defense community view irregular warfare subsets of foreign internal defense such as counterinsurgency and foreign anti-/counterterrorism as the specific province of special operations forces. Even with two large irregular warfare efforts ongoing in Afghanistan and Iraq, this attitude is still prevalent.

*AFDD 2-7, Special Operations* reinforces the idea that special operations forces are principally responsible for irregular airpower functions. The document's list of U.S. Special Operations Command "Core Tasks" supported by Air Force Special Operations Command includes counterterrorism, unconventional warfare, foreign internal defense, civil affairs, and psychological operations.<sup>108</sup> Foreign internal defense was previously defined, but the other listed tasks require clarification. Counterterrorism is "Operations that include the offensive measures taken to prevent, deter, preempt, and respond to terrorism." Unconventional warfare is "A broad spectrum of military and paramilitary operations, normally of long duration, predominantly conducted through, with, or by indigenous or surrogate forces who are organized, trained,

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<sup>106</sup> Outside support for this premise includes Dennis M. Drew, "Insurgency and Counterinsurgency: American Military Dilemmas and Doctrinal Proposals," (Center for Aerospace Doctrine, Research, and Education paper, Maxwell Air Force Base, AL: Airpower Research Institute, 1988), 18; David Galula, *Counterinsurgency Warfare: Theory and Practice*, (New York, Frederick A. Praeger Publishing, 1964), 7-8; and Trinquier, 8.

<sup>107</sup> *AFDD 2-3.1*, 45.

<sup>108</sup> *AFDD 2-7*, 8-10.



equipped, supported, and directed in varying degrees by an external source. It includes, but is not limited to, guerrilla warfare, subversion, sabotage, intelligence activities, and unconventional assisted recovery.” While ostensibly obvious, civil affairs are nonetheless vaguely defined as “. . . civil affairs activities and . . . specialized support to commanders responsible for civil-military operations.”<sup>109</sup> Finally, psychological operations are defined as “Planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. The purpose of psychological operations is to induce or reinforce foreign attitudes and behavior favorable to the originator’s objectives.”<sup>110</sup>

The remainder of *AFDD 2-7* explains how Air Force special operations forces organize, train, equip, and execute missions to support the core tasks listed previously. The doctrine does a good job of explaining how USAF special operations forces execute joint special operations but seems to focus primarily on the areas in which Air Force special operations forces seem most comfortable: support to unconventional warfare -- that is, behind-the-lines and partisan operations -- and direct action. The doctrine is thin in the areas of foreign internal defense, civil affairs, and psychological operations.

In terms of joint doctrine, the term airpower and its concepts appear extensively, but no clear guidance or link is provided between airpower or air forces and irregular conflict. A review of current joint doctrine applicable to irregular warfare reveals no mention of airpower in irregular war.<sup>111</sup> There is also little substantive discussion of Air Force participation in irregular activities except brief mentions of air activities in Operation PROVIDE COMFORT in Iraq in the

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<sup>109</sup> *JP 1-02* defines civil affairs activities as “Activities performed or supported by civil affairs that (1) enhance the relationship between military forces and civil authorities in areas where military forces are present; and (2) involve application of civil affairs functional specialty skills, in areas normally the responsibility of civil government, to enhance the conduct of civil-military operations,” 86.

<sup>110</sup> *AFDD 2-7*, 8-10.

<sup>111</sup> *JP 3-0*, 3-07, and 3-07.1.

1990s and airlift supporting civil authorities in a military operations other than war environment.<sup>112</sup>

Finally, this review of current doctrine ends with a look at a recently released U.S. Army and Marine Corps publication. It is beyond the scope of this paper to exhaustively research Army or Marine doctrine for indications of irregular warfare airpower theory. However, it is reasonable to assume that were such doctrine to exist it would be included in the latest irregular warfare publication from each of these services, U.S. Army *Field Manual (FM) 3-24, Counterinsurgency* (Marine Corps *Warfighting Publication 3-33.5*). *FM 3-24* delivers in this regard; an entire appendix is devoted to the subject of “Airpower in a Counterinsurgency.” While the manual is devoted to only one aspect of irregular warfare, counterinsurgency, its airpower appendix is unique in that it is the longest single piece of current doctrine providing an over-arching framework for the employment of airpower in an irregular environment.

That appendix addresses the support nature of air and space power in a counterinsurgency, explicating the principal roles as strike, intelligence collection, information operations (to include psychological operations and electronic warfare), and airlift. The appendix also discusses the range of technology options available from air and space power forces, ideas for an airpower command structure, including the likelihood of operating from expeditionary airfields, and a discussion on building host nation airpower capacity.<sup>113</sup> This is one of the most interesting parts of the appendix in that it presents the advise, train, and assist mission within a conventional or general-purpose forces manual. That mission, by doctrine and practice, has traditionally been the province of specially trained Air Force units like the 6th Special Operations Squadron. *FM 3-24’s* airpower appendix, much like the entire manual, recognizes the growing

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<sup>112</sup> *JP 3-07*, 27, 36, and 51.

<sup>113</sup> US Army and US Marine Corps, *Field Manual(FM) 3-24 or Marine Corps Warfighting Publication 3-33.5, Counterinsurgency*, (Washington, DC: Headquarters, Department of the Army and Headquarters, United States Marine Corps, 2006), E-1 through E-5.

need for conventional or general-purpose forces to conduct advise, train, and assist missions in the current and irregular operational environments since the need has exceeded, and may continue to exceed, special operations forces capacity.<sup>114</sup>

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<sup>114</sup> Colonel M.S. Pugmire, USAF, personal interviews by author, 29 November and 15 December 2006.

## CHAPTER THREE - EVALUATION CRITERIA FOR VALIDATING DOCTRINE

This chapter examines the desired utility and form of basic and operational doctrine, presents two recent approaches to analyzing irregular warfare airpower theory, and synthesizes those approaches into evaluation criteria for validating current irregular warfare airpower doctrine.

### Utility and Form of Basic and Operational Doctrine

As discussed in chapter one, doctrine results from sound theory and becomes the U.S. military's "common knowledge" for the conduct of war. Basic, or capstone, doctrine is defined within this study as "the most fundamental and enduring beliefs that describe and guide the proper use, presentation, and organization of . . . forces in military action."<sup>115</sup> Operational doctrine "describes more detailed organization of . . . forces and applies the principles of basic doctrine to military actions."<sup>116</sup>

Theory, or a set of complementary theories, forms the core of basic and operational doctrine. Generalizations from the analysis of history help form the basis for theory, or broad concepts and principles for the conduct of military operations. This simplified definition of theory is supported by Paul Reynolds' "set-of-laws" idea, which states that theory is "the conception of scientific knowledge as a set of well-supported empirical generalizations or 'laws' . . ."<sup>117</sup> As Dennis Drew describes it doctrine "may not fulfill all of the requirements of a formal academic definition of theory, [but] satisfies most of the same functions and in that sense forms a 'poor man's' theory of airpower."<sup>118</sup>

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<sup>115</sup> AFDD I, 7-8.

<sup>116</sup> US Joint Staff, *Joint Doctrine Capstone and Keystone Primer*, (Washington, DC: Joint Staff Directorate for Operational Plans and Joint Force Development [J-7], 2001), 91-93.

<sup>117</sup> Paul D. Reynolds, *A Primer in Theory Construction*, (Boston, MA: Allyn and Bacon, 1971), 10.

<sup>118</sup> Drew, "US Airpower Theory and the Insurgent Challenge," 810.

Basic doctrine is the over-arching theoretical framework, or paradigm, that governs military action in a particular physical domain such as joint operations, air and space, land, or sea warfare. Abstract, conceptual terms such as principles, tenets, roles, missions, and functions often present the first-tier understanding that comprises basic doctrine.<sup>119</sup> The USAF has taken this concept one step further by enumerating core competencies and capabilities, ideas intended to “encapsulate what distinguished the Air Force from the other services in terms of warfighting.”<sup>120</sup>

Operational doctrine takes the conceptual ideals of basic doctrine and attempts to “operationalize” them, translating fundamental principle into concrete action. The engine for accomplishing this operationalization is often a second theory or theories that effect the translation.

Historically, the USAF’s fundamental theoretical paradigm has been strategic paralysis, represented in the first half of the twentieth century by economic warfare through industrial targeting, and since the 1991 Gulf War as control warfare through command targeting.<sup>121</sup> The physical vehicle for realizing these two forms of strategic paralysis was strategic bombing, now known as strategic attack. British warfare theorists J.F.C. Fuller and Basil H. Liddell Hart developed the theoretical underpinnings of strategic paralysis based in part on their readings of Sun Tzu and Clausewitz and their experiences in the First World War.<sup>122</sup> Strategic paralysis posits winning wars through “swift incapacitation” of an enemy by attacking “enemy vulnerabilities (vice strengths),” distinguished as a third type of warfare from Hans Delbruck’s

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<sup>119</sup> See, for example, *AFDD 1* or US Army, *FM 1, The Army* (Washington, DC: Headquarters, US Army, 2005).

<sup>120</sup> Chris J. Krisinger, “Who We Are and What We Do: The Evolution of the Air Force’s Core Competencies,” (*Air and Space Power Journal* 17, no. 3, Fall 2003), 16.

<sup>121</sup> David S. Fadok, “John Boyd and John Warden: Airpower’s Quest for Strategic Paralysis,” (thesis, US Air Force School of Advanced Airpower Studies, Maxwell AFB, AL, 1995), chapter 6; and, David Willard Parsons, “Towards the Proper Application of Airpower in Low Intensity Conflict,” (thesis, Naval Postgraduate School, Monterey, CA, 1993), chapter II. Parsons labels the USAF’s over-arching airpower theory as “the strategic bombing model.”

<sup>122</sup> *Ibid.*, chapter 1.

two typologies attrition and annihilation.<sup>123</sup> Early twentieth century airpower theorists Hugh Trenchard and Billy Mitchell built upon this foundation, believing that airpower was the ideal force for realizing strategic paralysis.<sup>124</sup> This grand framework for airpower theory has continued to the present day. Prior to and shortly after the 1991 Gulf War, USAF Colonel John Warden evolved this paradigm into a systemic approach emphasizing command targeting.<sup>125</sup>

The key to airpower strategic paralysis theory has always lain in the concept of being able to strike at the most important aspects of an enemy, not just his strengths. In the 1920s, Trenchard “insisted that paralyzing attacks upon those ‘vital centres’ which sustained the enemy’s war effort offered ‘the best object by which to reach victory.’” In parallel across the Atlantic, Mitchell “asserted that aerial bombardment’s greatest value lay in ‘hitting an enemy’s great nerve centers at the very beginning of the war so as to paralyze them to the greatest extent possible.’”<sup>126</sup> Both saw the primary role of airpower as directly attacking critical targets that would lead to an enemy’s strategic paralysis. At the time, these “vital centers” were viewed as principally economic or industrial -- the resources that fed the war machine.

Airpower theory in the Trenchard and Mitchell vein remained constant through the Vietnam War, continuing with the goal of strategic paralysis. The only evolution was the primary means of achieving strategic paralysis, nuclear instead of conventional strategic attack. The Vietnam experience resulted in the first true rift in USAF basic guiding theory, a schism that continued though the 1991 Gulf War and divided the service into “two basic groups of airmen. The first -- smaller and less influential -- held to the views of early air pioneers in their belief that air power was best applied in a comprehensive, unitary way to achieve strategic results. The second -- much more dominant -- had come to think of air power in its tactical applications as a

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<sup>123</sup> Ibid., 5 and 9-10.

<sup>124</sup> Ibid., 7-8.

<sup>125</sup> Ibid., chapter 4.

<sup>126</sup> Ibid., 7.

supportive element of a larger surface (land or maritime) campaign.”<sup>127</sup> The standard-bearer for the former group was USAF Colonel John Warden who reinvigorated the conception, still extant at the time in USAF doctrine, of airpower as key to strategic paralysis in his 1988 book *The Air Campaign: Planning for Combat*. Warden agreed with Trenchard’s and Mitchell’s targeting of “vital centers” but redefined them in terms of Clausewitz’s “center of gravity” concept, writing “the term ‘center of gravity’ is quite useful in planning war operations, for it describes that point where the enemy is most vulnerable and the point where an attack will have the best chance of being decisive.”<sup>128</sup> Warden, however, distinguished himself from the earlier focus on economic and industrial centers writing that command “is the sine qua non of military operations . . .” and “is a true center of gravity and worth attack in any circumstance in which it can be reached.”<sup>129</sup> Warden thus reshaped airpower’s strategic paralysis theory, concentrating on command, rather than economic, targeting.

The overwhelming coalition success during the 1991 Gulf War brought Warden’s theory to the fore and USAF’s institutional consciousness returned to the paradigm of strategic paralysis realized through strategic attack; a consciousness that had become bifurcated in the years since the drawdown of U.S. military involvement in Vietnam. Through Warden’s subsequent writings and those of his protégé, David Deptula, one of the principal planners of the Desert Storm air campaign, the USAF over-arching strategic paralysis theory evolved to focus on targeting identified centers of gravity, with command being key among them.<sup>130</sup> Emphasis on new target sets such as command and control is an operationalizing of the fundamental theory, like that accomplished by British and American theorists in the first half of the twentieth century with

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<sup>127</sup> Charles G. Boyd, in the foreword to *Heart of the Storm: The Genesis of the Air Campaign against Iraq* by Richard T. Reynolds, (Maxwell AFB, AL: Air University Press, 1995), xi.

<sup>128</sup> John A. Warden III, *The Air Campaign: Planning for Combat*, (Washington, DC: National Defense University Press, 1988), *The Air Campaign* in Prospect.

<sup>129</sup> *Ibid.*, chapter 3.

<sup>130</sup> David T. Deptula, “Firing for Effect: Change in the Nature of Warfare,” (Arlington, VA: Aerospace Education Foundation, 1995); and, John A. Warden III, “The Enemy as a System,” *Airpower Journal* 9, no. 1, Spring 1995).

their economic and industrial targeting approach. Deptula further refined Warden's concepts, bringing forth the idea of effects-based operations, which is the primary operationalizing theory in USAF airpower doctrine today.<sup>131</sup>

Current USAF basic doctrine adheres to Warden's thesis that there are always identifiable centers of gravity susceptible to attack by air. *AFDD 1* states "it is possible to directly affect adversary sources of strength and will to fight by creating shock and destroying enemy cohesion without close combat," and "the ability to quickly integrate a force and to strike directly at an adversary's strategic or operational centers of gravity is a key theme of air and space power's maneuver advantage."<sup>132</sup> This approach has shown applicability and results in traditional state-on-state conflict, but it is less clear how it applies to small wars and irregular conflict. *AFDD 1* states that options "include the ability to coerce and compel adversaries in military operations other than war."<sup>133</sup> The subtext in this phrase is that the enemy in a small war can be coerced or compelled to comply with U.S. desires. Implicit in this is the idea then that something within the enemy system can be targeted, such as command or resources, to coerce or compel adversary compliance. While this may be applicable in traditional state-on-state conflict and in unconventional warfare operations in support of a larger traditional campaign, insurgencies and terrorists may not present such easily targeted "sources of strength" or "centers of gravity."

Corum and Johnson support this point:

In contrast with a conventional state-on-state war, insurgents and terrorists rarely possess a capital city, a formal government infrastructure, regular fielded armed forces, or war industries. Insurgents are commonly organized as guerrilla forces that hide within the civilian population. Insurgent organizations and leadership commonly operate underground or have sanctuary in another country that is not openly part of the conflict. Insurgent forces are likely law-abiding, pro-

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<sup>131</sup> David T. Deptula, "Effects-based Operations: Change in the Nature of Warfare," (Arlington, VA: Aerospace Education Foundation, Defense and Airpower Series, 2001); and, *AFDD 2*. For a conceptual background to USAF's approach to effects-based operations see Edward C. Mann III, et al., *Thinking Effects: Effects-Based Methodology for Joint Operations*, (Maxwell AFB, AL: Air University Press, 2002).

<sup>132</sup> *AFDD 1*, 17-18 and 23.

<sup>133</sup> *Ibid.*, 17.



government peasants by day and anti-government guerrillas by night. Insurgents generally fight in small units to exploit their inherent advantages in surprise, mobility, and initiative. On occasion, insurgent forces may combine into a large force and wage a conventional battle against government forces. When this occurs, the direct and lethal employment of airpower can be applied with great effectiveness. However, generally speaking, guerrillas and terrorists rarely present lucrative targets for aerial attack, and even more rarely is there ever a chance for airpower to be employed in a strategic bombing campaign or even in attack operations on any large scale. As a result, it is the indirect application of airpower -- that is, the use of aviation resources for reconnaissance, transportation, psychological operations, and communications -- that proves most useful.<sup>134</sup>

While the operational mode of targeting, effects-based operations, espoused by current airpower theory may be viable, the over-arching theory that strategic paralysis is achieved through strategic attack may be flawed in that it does not address all wars throughout the spectrum of conflict, in particular the insurgency and terrorism aspects of irregular war.<sup>135</sup> Basic doctrine needs to recognize the full spectrum of possible wars and present a fundamental theory or theories that address all conflict within that spectrum (see Figures 1 and 2). Operational doctrine should then translate the abstractions of fundamental theory, transforming the cognitive framework into approaches for concrete, tactical action.

## Recent Analysis Approaches

There are two recent comprehensive approaches to analyzing the role of airpower in irregular warfare, one put forth in 2003 by Dr. James Corum and Dr. Wray Johnson, the other in 2006 by USAF Major Ronald Stuewe.

### Corum and Johnson

Corum and Johnson present their analysis at the end of their seminal small war history *Airpower and Small Wars: Fighting Insurgents and Terrorists*. In their conclusion they “offer

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<sup>134</sup> Corum and Johnson, 7-8.

<sup>135</sup> For an excellent discussion of the inapplicability of prevailing fundamental airpower theory to irregular warfare see John W. Bellflower, “The Indirect Approach,” *Armed Forces Journal*, (Springfield, VA: Army Times Publishing Company, January 2007). Accessed online at [http:// www.armedforcesjournal.com/2007/01/2371536](http://www.armedforcesjournal.com/2007/01/2371536) on 11 February 2007.

eleven of the most important lessons that [they] have drawn from history for future doctrine, technology, and organization.”<sup>136</sup> As such, these lessons serve as guides for the development of irregular war airpower theory and doctrine.

The first lesson is that “a comprehensive strategy is essential.” The authors define strategy as “the allocation of military, political, economic, and other resources to attain a political goal.” Political and economic elements of power are paramount in an insurgency. As Corum and Johnson note, “unsuccessful counterinsurgency campaigns such as the Portuguese operation in Africa, the French in Algeria, the Rhodesian Republic, and the Soviets in Afghanistan were characterized by a strategy that viewed the war almost solely as a military operation and ignored the political and economic dimensions of the conflict.”<sup>137</sup> Air University professor Dennis Drew supports this conclusion writing, “any successful counterinsurgent strategy must incorporate a three-pronged approach. The government must excise the sources of popular unrest, must identify and destroy the covert infrastructure, and must defeat the insurgent military forces.” He continues by noting that the first two of his three prongs are non-military.<sup>138</sup>

Corum and Johnson’s second lesson is “the support role of airpower is usually the most important and effective mission in guerrilla war.”<sup>139</sup> Those who believe in the decisiveness of ground forces in irregular warfare might object to this conclusion, but such an objection misses the point. Lesson two is related to the first in that the military instrument of power plays a crucial but *supporting* role in small wars, particularly in counter-insurgent and counter-terror operations. As part of the supporting military element, airpower contributes crucial, in Corum and Johnson’s estimation often *the* crucial, mission support to the comprehensive effort. Airpower, like the rest of the military, should fulfill a supporting rather than primary role in irregular conflicts. The only

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<sup>136</sup> Corum and Johnson, 425.

<sup>137</sup> Ibid., 425-26.

<sup>138</sup> Drew, “Insurgency and Counterinsurgency,” 35 and 37.

<sup>139</sup> Corum and Johnson, 427.

exception to this conclusion might be some instances of unconventional warfare where the military instrument may be dominant.

The next two lessons both deal with aerial attack. The third lesson, “the ground attack role of airpower becomes more important when the war becomes conventional,” reveals that direct attack of insurgent or terrorist forces has been historically most effective when “they concentrate in large forces.” This situation provides readily identifiable targets for aerial attack. Conversely, the fourth lesson that “bombing civilians is ineffective and counterproductive,” speaks to the danger of losing popular support due to collateral damage from air attack. Unless the enemy presents an identifiable formation well clear of civilians, the possibility of alienating the populace due to inadvertent injury far outweighs the advantage of striking small irregular groups or units.<sup>140</sup>

Lessons five and six address the impact of technology stating, “there is an important role for the high-tech [and] low-tech aspect of airpower in small wars.” On the high-technology side, the most important innovations are remotely piloted or unmanned aerial vehicles, modern sensors, night-vision devices, and all-weather precision weapons supported by space capabilities like global positioning system. These capabilities have resulted in counter-insurgent and counter-terror forces stealing the sanctuary of night from insurgents and terrorists as well as gaining the psychological advantages afforded by twenty-four hour presence or the perception of such presence. On the low-technology side, there are numerous historical examples pointing to the advantages of inexpensive, easy-to-maintain, and austere airfield capable light strike, reconnaissance, and transport craft in irregular war operations.<sup>141</sup>

The seventh lesson is “effective joint operations are essential for the effective use of airpower,” exemplified by the statement that “airpower is most effective when it is carefully

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<sup>140</sup> Ibid., 427-29.

<sup>141</sup> Ibid., 429-32.

coordinated with ground forces.”<sup>142</sup> Many classical airpower advocates would take affront to such an assertion since it smacks of the subordination of air forces to ground force commanders that USAF pioneers fought against so vehemently in the first half of the twentieth century. As in lesson two, such opposition misses the point that all military forces should be supporting a larger comprehensive approach in an irregular war, not simply air forces supporting a ground force lead.

Lesson eight is “small wars are intelligence intensive.” There is a need for joint and inter-agency intelligence sharing in irregular conflict and human intelligence plays a greater role than it may in traditional forms of war. This is an area where the high-technology capabilities of air and space power can be insufficient. As Corum and Johnson write, “one can determine from overhead imagery that a group of peasants have left their village to travel to a neighboring village. But overhead imagery cannot explain why.”<sup>143</sup> Dennis Drew echoes the importance of intelligence in irregular wars, noting that it is essential to “the implementation of a successful counterinsurgency strategy.”<sup>144</sup>

“Airpower provides the flexibility and initiative that is normally the advantage of the guerrilla” is the ninth lesson. Corum and Johnson’s historical analysis reveals that “airpower restored the initiative and flexibility to government forces in counterinsurgency operations” that was lost in the era before aircraft. Thus, “airpower is a vital force multiplier,”<sup>145</sup> in the same supporting sense exemplified by lessons two and seven.

The tenth lesson, that “small wars are long wars,” is most applicable to irregular conflict against insurgents and terrorists, who are typically non-state actors. The authors assert, “regular armies and air forces generally dislike thinking about fighting insurgents and terrorists because a conflict against a non-state entity does not lend itself to quick, decisive victory.”<sup>146</sup> The U.S.

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<sup>142</sup> Ibid., 433.

<sup>143</sup> Ibid., 434.

<sup>144</sup> Drew, “Insurgency and Counterinsurgency,” 37.

<sup>145</sup> Ibid., 434-35.

<sup>146</sup> Ibid., 436.

military's uneven and inconsistent treatment of irregular warfare airpower doctrine was, and continues to be, an example of its distaste for irregular conflict. The prevailing U.S. airpower theory of strategic paralysis through strategic bombing is a notable example of the U.S. military's desire for quick, decisive victory.

Corum and Johnson conclude with their eleventh lesson, the admonition that "the US and its allies must put more effort into small wars training."<sup>147</sup> This lesson consists of two parts: the aviation training and education of underdeveloped partner nations to aid in securing their states from internal and external threats; and, the education and training of U.S. and allied militaries in irregular warfare. Regarding the first half of the recommendation, the authors observe that "in the years to come, a much greater effort by the United States and other developed Western nations will have to be made to help friendly and allied states in the developing world combat internal as well as transnational unconventional threats." They see this as largely falling in the foreign internal defense arena, which "has become a stepchild of special operations."<sup>148</sup> One of their recommendations, that the USAF "form several squadrons specifically for training foreign aviation forces,"<sup>149</sup> may soon reach fruition with the creation of a foreign internal defense wing,<sup>150</sup> but the current operational environment of fighting two irregular wars in Iraq and Afghanistan would still overwhelm the capacity of such a proposed reorganization.<sup>151</sup>

The USAF Coalition and Irregular Warfare Center of Excellence, recently stood up at Nellis Air Force Base, Nevada, aims to overcome this problem through an objective of "building partnership capacity" and incorporating "general purpose forces" to shore up the advice, assistance, and training shortfalls<sup>152</sup> created by the "ghettoizing" of foreign internal defense into

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<sup>147</sup> Ibid., 437.

<sup>148</sup> Ibid., 437-39.

<sup>149</sup> Ibid., 438.

<sup>150</sup> Bruce Rolfsen, "Report: Entire wing needed to advise foreign militaries," *Air Force Times*, (Springfield, VA: Military Times Media Group, 4 December 2006), 10.

<sup>151</sup> Colonel M.S. Pugmire, USAF, personal interviews by author, 29 November and 15 December 2006.

<sup>152</sup> Ibid.

special operations.<sup>153</sup> The use of general purpose forces in aviation advise, train, and assist activities in Iraq, after a somewhat rocky start, has gained increased momentum recently.<sup>154</sup>

The second half of Corum and Johnson's eleventh lesson is the need for more small wars education in the U.S. military. This issue had improved somewhat, at least in some quarters, by early 2007,<sup>155</sup> but is still well behind where it should be given current U.S. and coalition involvement in two significant irregular conflicts. An important question regarding this lesson is whether the U.S. military has finally recognized irregular war as a form of conflict separate and distinct from traditional, state-on-state conflict, or whether the current emphasis on irregular war is simply a reaction to the demands of the current operational environment. If it is the former, then training and education in irregular war will improve and expand. If the latter, then that training and education will wither, as it has done before, with the passing of the current irregular crisis, only to surprise the U.S. again in the not-so-distant future when the inevitable next irregular war surfaces.

## Stuewe

Ronald Stuewe's framework for analysis evaluates airpower's impact in small wars using a multiple historical case study approach: the British in Malaya and the Falkland Islands; the French in Algeria and Indochina; and, the U.S. in the Philippine Anti-Huk campaign and in El Salvador.<sup>156</sup> His conclusions evaluate airpower's impact on small wars "in terms of contemporary

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<sup>153</sup> Corum and Johnson, 438.

<sup>154</sup> USAF officers serving on the Coalition Air Forces Training Team in Iraq, personal e-mails to author, December 2006 and January 2007.

<sup>155</sup> Numerous references note the increase in irregular warfare studies in US military education such as, "the U.S. Command and General Staff College counterinsurgency coursework grew from 5 percent of the overall work in 2001 to 40 to 45 percent in 2007," in an article by Dawn Bormann, "Fort Leavenworth bids farewell to Petraeus," *Kansas City Star*, sec. B, p. B9, February 3, 2007. As a student at the US Army's Command and General Staff College for the academic year 2005-2006, the author can attest to an increase in counterinsurgency study although characterizing it as nearly 50 percent of the coursework seems exaggerated. Even if correct, counterinsurgency study comprising only 50 percent of the syllabus at a major US military educational institution still seems insufficient given the overwhelming ratio of small wars to traditional ones in the past twenty years of history alone, not to mention the last 200 years.

<sup>156</sup> Stuewe, "One Step Back, Two Steps Forward," 7.

roles, missions, and characteristics unique to airpower.” In both his academic thesis and professional journal article on the subject, Stuewe uses a modified version of the USAF “distinctive capabilities” as a model for airpower’s unique roles, missions, and characteristics. The USAF’s doctrinal distinctive capabilities are, presumably in order of importance, air and space superiority, information superiority, global attack, precision engagement, rapid global mobility, and agile combat support.<sup>157</sup> Stuewe’s prioritized modification consists of air superiority; air mobility and supply; information superiority (to include surveillance, presence, influence, and psychological operations); precision engagement (including interdiction, harassment, and disruption); agile combat support; and, global attack. He also includes four key considerations: command and control, maximizing the inherent flexibility of airpower, the capabilities and limitations of technology, and education and leadership.<sup>158</sup>

The USAF has long viewed air superiority as “a vital first step in military operations.”<sup>159</sup> Stuewe’s analysis agrees with this principle, noting that air superiority involves not just “freedom to attack” but “freedom from attack” as well. Unfortunately, it is the latter that is most important in irregular warfare and yet least affected by modern technological advances. “The most significant threat to air superiority in small wars . . . comes from the ubiquitous ground threats of relatively inexpensive small arms and shoulder-fired missiles. Defeating, or at least diminishing, the pervasiveness of these weapons remains perhaps the paramount issue for airpower.”<sup>160</sup> This point was illustrated clearly in early 2007 when U.S. and coalition forces experienced increased helicopter losses in Iraq that pointed to possible new insurgent anti-aircraft techniques.<sup>161</sup>

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<sup>157</sup> AFDD 1, 76.

<sup>158</sup> Ibid., 60-74; and, Ronald F. Stuewe, Jr. “One Step Back, Two Steps Forward: An Analytical Framework for Airpower in Small Wars,” (*Air and Space Power Journal* 20, no. 1, Spring 2006), 94-95.

<sup>159</sup> AFDD 1, 76.

<sup>160</sup> Stuewe thesis, 60-61, and Stuewe journal article, 94.

<sup>161</sup> “Insurgents deliver helicopter threat,” *Chicago Tribune*, reprinted in *The Kansas City Star*, sec. A, p. A9, February 3, 2007.

Stuewe sees air mobility and supply as the cornerstone of airpower support in a small war, but does not label it global mobility as does the USAF because it “will often seem less global and increasingly regional.” The author writes, “the regional-mobility aspect of supplying, resupplying, and supporting fielded forces -- whether military or political -- can become the determining factor in the campaign’s overall strategy.” This mirrors Corum and Johnson’s second lesson that “the support role of airpower is usually the most important and effective mission in a guerilla war.” However, Stuewe notes that mobility forces “must be used to support, and not supplant, ground force maneuver and interaction within the population.”<sup>162</sup>

Stuewe cites the Marine Corps *Small Wars Manual* revision when he writes, “small wars are -- first and foremost -- information wars.” Despite the fact that the first two capabilities were prioritized for airpower in irregular conflict, information superiority is of primary importance to an overall irregular effort. Under this capability, Stuewe includes surveillance, presence, influence, intelligence, and psychological operations. Intelligence, surveillance, and reconnaissance are more important applications of the “counterforce” role of airpower than traditional kinetic attack. Stuewe’s analysis agrees with Corum and Johnson regarding the psychological advantages of twenty-four hour operations afforded by technological advances, but presents one caveat: the rising cost of aircraft and resulting limits on the number of available airframes. He presents the increase in unmanned aerial vehicles as a possible solution, one with which Corum and Johnson might concur.

With regard to the impact of airpower use in surveillance, reconnaissance, and influence, Stuewe reveals two concerns. First, “environmental factors significantly degrade the ability of airpower platforms to detect and observe elusive opponents.” Despite modern technical advantages, small insurgent, terrorist, and guerrilla groups are still difficult to locate, identify, track, and target. The second concern is the increasing urbanization of the world’s population,

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<sup>162</sup> Stuewe thesis, 68-69; and, article, 94.



which will put further demands on the technical ability of airpower to reconnoiter, track, and influence those populations within cities.<sup>163</sup> This concern parallels Corum and Johnson's recognition of the limits of airpower in the intelligence arena and the importance of human intelligence in small wars.

Stuewe's fourth capability is precision engagement, under which he includes interdiction, harassment, disruption, and some aspects of psychological operations. He notes, "most often associated with accurate kinetic weapons, precision engagement must nevertheless embody multiple aspects within the political and diplomatic context of small wars." Stuewe contends, much like Corum and Johnson, that "any negative effects of air attacks . . . can have strategic-level effects." Most importantly here is "the necessity to decouple capability from technology," wherein he cites an example of low technology, yet highly precise, airdrops by the British during the Malayan Emergency and the almost universal effectiveness of leaflet and broadcast flights in the cases analyzed. Precision engagement in Stuewe's context is a broad area covering precise effects, not just precise weapons or platforms.<sup>164</sup>

Agile combat support "traditionally deals with the elements of forward base support, infrastructure, and mobility for deployments." For the USAF, agile combat support is the catchall that captures the critical and essential role logistical and mission support elements play in the employment of air and space power. Stuewe puts an important and insightful twist on this capability when he observes, "in terms of Air Force support in small wars, however, the phrase *agile combat support* best exemplifies the supporting role that airpower plays."<sup>165</sup> In this light Stuewe reflects Corum and Johnson's lessons one and two emphasizing the need for a comprehensive approach and the critical, but supporting, role of airpower in the overall irregular

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<sup>163</sup> Ibid., 66-68, and 94.

<sup>164</sup> Ibid., 63-64 and 94.

<sup>165</sup> Ibid., 70 and 95.

effort. Consequently, this capability may be the highest priority in a conception of airpower in irregular war.

Stuewe explains that the final capability, global attack, “needs to be regionalized in the context of small wars.” The ability of modern airpower to strike targets globally from bases well removed from the theater of operations has a much less positive effect in an irregular war, and may actually be a detriment. This is due to Corum and Johnson’s fourth lesson, that “bombing civilians is ineffective and counterproductive.” Stuewe expands on the implications of this lesson by recognizing that distance in a small wars context is less a function of global access and more a function of the distance relationship between the target and the political situation on the ground. “Thus, one must weigh any attack mission, whether conducted by the most technologically advanced or most antiquated airpower platform, in terms of the potential negative strategic effects it may induce.”<sup>166</sup>

Stuewe’s four concluding points serve as key considerations for the use of airpower in irregular warfare. The first consideration is command and control. Under this point, Stuewe justifiably critiques one of the USAF’s most cherished doctrinal notions, the tenet of centralized control and decentralized execution. He concludes that the application of this tenet by the USAF has become dogmatic and may not be universally applicable, especially in a small wars context.<sup>167</sup> A decentralization of not just airpower execution, but also command, might facilitate greater responsiveness in terms of planning and resource allocation on the side of airpower forces assigned to a particular region or task group in an irregular conflict. The drawbacks might include the classic airpower advocate concern with an inefficient use of limited aerial platforms, a problem potentially offset through a different approach to command and control altogether. Stuewe addresses such an alternative view when he quotes RAND researcher Alan Vick, who

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<sup>166</sup> Stuewe article, 94-95.

<sup>167</sup> Stuewe thesis, 72.

says, “It is more accurate to think of air power -- from whatever service -- as a partner with ground and other military forces rather than emphasize who is supporting or supported.”<sup>168</sup> In this consideration, Stuewe’s analysis complements Corum and Johnson’s lesson seven, “effective joint operations are essential for the effective use of airpower.”

Stuewe’s second and third key considerations -- “maximizing the inherent flexibility of airpower” and the “capabilities and limitations of technology”<sup>169</sup> -- closely match Corum and Johnson’s lessons five, six, and nine. While the flexibility observation is readily apparent, the technology consideration requires a closer look. Here Stuewe takes a slightly different tack than Corum and Johnson, exploring the possible tension created by a traditionally high-technology endeavor, airpower, and high technology’s viability in a small wars context.<sup>170</sup> Corum and Johnson observe the equal applicability of high- and low-technology aspects of airpower in small wars while Stuewe reveals that compatibility may be mutually exclusive in some instances, or at least offsetting to the point of ineffectiveness. Examples might include a heavy bomber only capable of carrying precise 2000 pound joint direct attack munitions targeted against insurgent forces in a house with civilians in it, or an airlift aircraft capable of high-load capacities and short-field landings but unable to land at an austere forward airstrip where its cargo is most critically required.

Stuewe’s final key consideration, like the first part of Corum and Johnson’s final lesson, is an appeal to the institutional U.S. military for greater small wars education. He contends that efforts at such educational expansion will never take hold unless supported by senior leadership in the U.S. military.<sup>171</sup> Corum and Johnson call the dearth of such education in current U.S. military institutions “scandalous.”<sup>172</sup> Certainly, the need for a great deal more such education, in

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<sup>168</sup> Vick, et al., *Airpower in the New Counterinsurgency Era*, 107.

<sup>169</sup> Stuewe thesis, 72-73.

<sup>170</sup> *Ibid.*, 73.

<sup>171</sup> *Ibid.*, 74.

<sup>172</sup> Corum and Johnson, 4.

terms of both quantity and quality, is well overdue. Stuewe's warnings that educational improvements will die on the vine without senior leader support should also be heeded. One way senior leadership can show education improvements is recommending, developing, and supporting doctrinal change, especially at the basic and operational level. It is promising to note that high-level impetus for such doctrinal change appears to be occurring now, at least to some degree at the operational level, within the USAF.<sup>173</sup>

## **Evaluation Criteria**

Chapter one, and the foregoing portion of this chapter, presented definitions, concepts, and two comprehensive approaches to analyzing irregular warfare airpower theory and doctrine. This section synthesizes these definitions, concepts, lessons, capabilities, and considerations into one set of criteria for evaluating current and needed airpower in irregular warfare doctrine. One additional consideration is addressed before those criteria are presented.

As an institution, the USAF believes that “at the very heart of warfare, lies doctrine.”<sup>174</sup>

Certainly, this is likely a sentiment shared to some degree or another by all U.S. military services. A typical U.S. military progression of capability and capacity lists doctrine as the first element in a sequence that includes organization, training, materiel, leadership, personnel, and facilities. In this calculus doctrine is the engine for organizational, training, and employment capability developments and changes that follow. Thus, for doctrine to be effective, it must be read and understood by, and to a degree inculcated in, the people who transform its abstract principles, frameworks, and concepts into concrete action.

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<sup>173</sup> Sagraves, personal e-mail, January 2007; and, anonymous USAF Air Combat Command official, personal e-mail to author, January 2007.

<sup>174</sup> AFDD 1, 88.

Unfortunately, doctrine, especially at the basic and operational levels, is often seen as valueless by the operational and tactical end-user.<sup>175</sup> This is likely attributable to two reasons. First, doctrine documents are often long and wordy. Tactical and operational users are extremely busy maintaining tactical proficiency, planning and executing current operations, and deploying to combat theaters. They have little patience or time for lengthy professional reading with marginal tangible benefits. Second, the lack of interest in reading doctrine is directly related to the perception that such doctrine has become increasingly irrelevant as the discontinuity between the contemporary operational situation and first and second-tier doctrine rapidly widens. Thus, basic and operational doctrine needs to be clear, succinct, and relevant or it will not be read, understood, internalized, or employed by the tactical or operational end-user.

Figure 3 presents the synthesized evaluation criteria and their source locations either within this monograph or from bibliographic materials. These criteria shape the analysis of current doctrine in chapter four and the recommendations for doctrinal improvement in chapter five.

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<sup>175</sup> Author personal interviews with several USAF air and ground operators with recent irregular combat experience (since 11 September 2001), Nellis AFB, NV, December 2006.

**Figure 3. Synthesized Evaluation Criteria**

<b>Doctrine Level</b>	<b>Evaluation Criteria</b>	<b>Source</b>
Basic	Irregular warfare definition that agrees with DOD accepted version	DOD Irregular Warfare Joint Operating Concept (Chapter One)
	Depiction and definition of spectrum of conflict that includes irregular warfare	Irregular Warfare Joint Operating Concept and Field Manual 3-0 (Chapter One)
	Fundamental airpower theory that accounts for irregular warfare and adversaries	Chapter Three (Utility and Form of Basic and Operational Doctrine)
	Functions, core competencies and distinctive capabilities discussions that reflect irregular warfare	Examination of the text of the basic doctrine
Operational	Theoretical construct for operationalizing the conceptual ideals of basic doctrine, translating fundamental principle into concrete action. (e.g., effects-based operations)	Chapter Three (Utility and Form of Basic and Operational Doctrine)
<b>Doctrine Level</b>	<b>Evaluation Criterion</b>	<b>Source</b>
Operational	Airpower distinctive capabilities prioritized and explained with regard to irregular warfare: 1) agile combat support, 2) air superiority, 3) information superiority, 4) air mobility and supply, 5) precision engagement	Chapter Three (Utility and Form of Basic and Operational Doctrine – Stuewe and Corum / Johnson)
	Additional irregular warfare critical capability: 6) Building partnership airpower capability and capacity	Chapter Three (Utility and Form of Basic and Operational Doctrine –Corum / Johnson)

<b>Doctrine Level</b>	<b>Evaluation Criteria</b>	<b>Source</b>
Key General Considerations	1) a comprehensive, joint, interagency strategy is required; 2) irregular wars are long wars; 3) education and training both domestically and abroad is critical to continued irregular warfare capability; 4) irregular wars are intelligence sensitive; 5) maximize the inherent flexibility of airpower; 6) be aware of the capabilities and limitations of technology in an irregular context; 7) set up command and control relationships based on effectiveness, not the tenet of centralized control, decentralized execution	Chapter Three (Utility and Form of Basic and Operational Doctrine – Stuewe and Corum / Johnson)
Readability Test	All doctrine should be clear, succinct, and relevant	Chapter Three (this section)

## CHAPTER FOUR - CURRENT DOCTRINE EVALUATION

This chapter evaluates current published irregular warfare airpower doctrine based on the evaluation criteria presented in chapter three.

### Basic Doctrine

As noted in chapter two, current USAF basic doctrine contains none of the evaluation elements presented in chapter three. Joint doctrine is also similarly deficient except for the revision of *JP 1, Doctrine of the Armed Forces of the United States*, which is slated to include the current U.S. military definition of irregular warfare presented in chapter one.

The *JP 1* draft unfortunately falls extremely short in the area of defining the spectrum of conflict, where it uses instead the term “range of military operations.” The illustration and description of the range of military operations simply describes a continuum between “crisis response and limited contingency operations” and “major operations and campaigns” both encapsulated by the idea of “military engagement, security cooperation, and deterrence.” Under this description, a few of the elements of irregular warfare (foreign internal defense and antiterrorism) would fall under the umbrella of “military engagement, security cooperation, and deterrence,”<sup>176</sup> but the illustration and explanation fall far short of explicating a more accurate spectrum of conflict as depicted in the *Irregular Warfare Joint Operating Concept* and *Field Manual 3-0, Operations* (DRAG).<sup>177</sup> Thus, basic USAF and joint doctrine for airpower in irregular warfare is nearly nonexistent and fails to fulfill all but one of the evaluation criteria presented in chapter three.

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<sup>176</sup> *JP 1* (revision final coordination draft), I-13 and I-14.

<sup>177</sup> Between November 2006 and January 2007 the author was a member of the School of Advanced Military Studies review team for the *JP 1* revision process and provided several substantive inputs to improve this section of the draft. It is unclear, as of this writing, whether those inputs will be accepted for the final version of the publication.



## Operational Doctrine

Joint operational doctrine is even worse than basic doctrine with respect to the chapter three criteria, missing the mark in virtually every respect. Separate service doctrine, on the other hand, in the form of *FM 3-24, Counterinsurgency*, fares much better.

*FM 3-24* recognizes that one aspect of irregular warfare, counterinsurgency, is an important part of modern conflict and deserves equal doctrinal treatment. Its airpower appendix, while not providing an over-arching theory for airpower in irregular warfare, does attempt to operationalize airpower in the counterinsurgency environment. It examines airpower functions and missions in light of counterinsurgency operations, stresses the importance of combat aviation advisory missions, recognizes the advantage accrued by airpower's flexibility, and presents a command and control concept distinct from USAF's usual centralized control and decentralized execution. *FM 3-24* provides a good primer for airpower in counterinsurgency operations and will serve ground forces well, especially if the USAF develops a greater body of irregular warfare airpower doctrine to which all services can refer in the future. Overall it may serve as a guide or outline for similar rewrites of USAF basic and operational doctrine that more completely address irregular warfare.

USAF operational doctrine contains a hodge-podge of irregular warfare references and concepts. This evaluation centers on the operational doctrine that describes concepts applicable to the whole service and not just a particular part of it. Thus, this section looks primarily at *AFDD 2, Operations and Organization* and *AFDD 2-1, Air Warfare*, with only brief reference to function-specific documents such as *AFDD 2-7, Special Operations*. Chapter two provides a further inspection of remaining USAF operational doctrine and its association with irregular warfare.

*AFDD 2* succeeds in terms of the evaluation criteria only if such criteria are applied to traditional warfare. Its construct for operationalizing fundamental USAF airpower theory is effects-based operations, which it discusses extensively. An effects-based approach to irregular

warfare operations may be viable but the doctrine provided in *AFDD 2* does not regard irregular warfare as a type of conflict necessitating such an operational framework. This is due to strategic paralysis in traditional conflict being the basis for USAF's principal airpower theory. The general layout and design of *AFDD 2* appears sufficient for addressing the concerns of operationalizing theory into tactics, but lacks any discussion of irregular warfare as an important aspect of the spectrum of conflict.

*AFDD 2-1, Air Warfare*, fails to fulfill any of the operational criteria but does manage to fill-in one of the basic doctrine criterion inadequately addressed by *AFDD 1*, that of depicting a spectrum of conflict that includes irregular warfare. While not actually illustrating the full scope of conflict as well as Figure 1, *AFDD 2-1* addresses three types of traditional conflict operations relevant to airpower, and one irregular type of conflict, guerrilla warfare. Guerrilla warfare, in the minds of the *AFDD 2-1* writers, is actually the name for what is currently termed counterinsurgency. Nonetheless, it represents the only serious USAF basic or operational-level discussion of a type of warfare other than traditional and conventional.

The excerpts from *AFDDs 2-1, 2-1.3, Counterland Operations*, and *2-3.1, Foreign Internal Defense*, provide the USAF's best efforts at the basic and operational levels to address the counterinsurgency aspect of irregular warfare. Collectively, these documents define counterinsurgency operations as a unique type of warfare, present the beginnings of an overall theory (especially in *AFDD 2-3.1*), address how airpower is uniquely applied in counterinsurgency, and discuss some of the key general considerations within the chapter three criteria, in particular the need for comprehensiveness and the value of advisory and assistance. Unfortunately, these documents were written by different authors, at different times, and do not express a unified concept of airpower in counterinsurgency operations.

The insurgency or unconventional warfare aspect of irregular conflict is addressed well within *AFDD 2-7, Special Operations*, but is not recognized as a component of a larger airpower in irregular warfare construct, perhaps because higher-level basic and operational doctrine also

fail to recognize it in that way. Were irregular war to receive equal attention at higher levels of USAF doctrine, the treatment of insurgency and unconventional warfare within *AFDD 2-7* would be more than sufficient.

On the same note, if the additional critical capability of building partnership airpower capability and capacity were adequately addressed at the basic and first tiers of operational doctrine, then the treatment of the combat aviation advisory mission within *AFDD 2-3.1, Foreign Internal Defense*, would also be more than sufficient. That document is probably the most developed treatment of an irregular warfare subject area within any USAF basic or operational doctrine. While some of its topics and discussions range far a field of simply special operations or the combat aviation advisory mission, it is with that document, and its former writers, that the USAF can find the foundation upon which to reshape its basic and operational doctrine to reflect the needs of the irregular warfare environment.

Finally, to aid in readability and conciseness, the USAF should begin two fundamental actions. First, combine *AFDDs 2* and *2-1* into one document, thereby reducing the redundancy between the two while also removing the artificial separation of “air warfare” from others types of airpower such as special operations and air mobility. Second, stop the publication of *AFDD 2-3, Irregular Warfare*, and instead incorporate the text of the rewrite, where applicable, into *AFDD 1* and all applicable operational doctrine, especially *AFDD 2*. Finally, chapter five proposes recommendations for what such airpower in irregular warfare rewrites into USAF and joint basic and operational doctrine might look like.

## **CHAPTER FIVE - DOCTRINAL PROPOSALS, RECOMMENDATIONS FOR FURTHER STUDY, AND CONCLUSION**

This chapter proposes changes and additions to basic and operational irregular warfare airpower doctrine, provides recommendations for further research and study, and concludes this monograph.

### **Doctrinal Proposals**

This section proposes changes and additions to basic and operational irregular warfare airpower doctrine. It begins with proposals for USAF doctrine and then highlights where these changes might affect joint doctrine as well.

#### **USAF Doctrine**

Current USAF doctrine consigns airpower in irregular warfare doctrine to second- and third-tier operational publications, such as *AFDD 2-3.1, Foreign Internal Defense*. Recognition of the “tier” in which such discussion occurs is not pejorative, but rather serves to illustrate that such doctrine does not represent the highest priorities of the service. While much of the information within publications such as *AFDD 2-3.1* is necessary and correct, it does not appear to be supported by a fundamental institutional belief in its importance or broad impact. Fully embracing irregular warfare requires USAF basic and first-tier operational doctrine to emphasize all aspects of it at a fundamental, not peripheral, level. The USAF should revise its basic and operational doctrine to mirror the evaluation criteria presented in Figure 3 of chapter three.

#### **Basic Doctrine**

First, *AFDD 1* should contain the Defense Department-approved irregular warfare definition. Second, it should contain a discussion of a broad spectrum of conflict that includes irregular warfare. Figures 1 and 2, or a synthesis of these, are an excellent start in this regard. Third, the

fundamental over-arching theory of airpower espoused in USAF basic doctrine requires modification as well.

The USAF should retain its basic theory of strategic paralysis through strategic attack for major combat operations in traditional warfare. With respect to irregular warfare, however, a new construct is required, one that recognizes the centrality of the “relevant population” and its motivation, support, and strength of will in irregular conflict. USAF Captain John W. Bellflower presents a viable idea for this new construct in his article, “The Indirect Approach.”<sup>178</sup>

Bellflower proposes modifying John Warden’s five-ring strategic bombing model<sup>179</sup> for irregular warfare by replacing “government, energy sources, infrastructure, citizens, and fielded military” with “20th-century psychologist Abraham Maslow’s four levels of deficit needs.”<sup>180</sup> In this revision to Warden’s theory the rings become basic needs (air, water, and food), safety needs (security for oneself and family), social needs (a sense of community and belonging), and self-esteem.<sup>181</sup>

Initially, these new “rings” do not appear to be areas airpower can affect until Bellflower provides examples of the application of his modified “ring” definitions. For basic needs, air mobility, resupply, and airdropping can play a critical role. Key to safety and security are the lethal and deterrent aspects of airpower, and surveillance and reconnaissance. For the third and fourth new rings, airpower can be a unifying and actualizing institution as a population learns to employ it effectively for security and defense and identifies with its airpower forces as a representation of personal, community, and national pride.<sup>182</sup> Whether or not the USAF adopts this approach, the important point is that basic doctrine must address the fundamental difference between the

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<sup>178</sup> Bellflower, “The Indirect Approach.”

<sup>179</sup> Warden, “The Enemy as a System.”

<sup>180</sup> Bellflower, “The Indirect Approach.”

<sup>181</sup> Ibid.

<sup>182</sup> Ibid.; also for an expanded example of how Bellflower’s new second through fourth rings might look in a real irregular warfare situation see Robyn Read, “Effects-based Airpower for Small Wars: Iraq After Major Combat,” (*Air and Space Power Journal* 19, no. 1, Spring 2005), 103-112.

traditional warfare focus on target-able entities such as leadership (government) and the irregular warfare focus on the relevant population, which rarely entails targeting in the direct, lethal sense. The fourth proposal for USAF basic doctrine is to rewrite the discussion of its operational functions, core competencies, and distinctive capabilities<sup>183</sup> in a way that addresses not only traditional warfare, but also irregular warfare. Currently, only the USAF operational function of special operations discusses irregular ideas, and even it is inadequate due to its focus on direct action and unconventional warfare, to the detriment of any discussion of counterinsurgency operations.<sup>184</sup> These discussions can be expanded upon using the summaries of Corum and Johnson's and Stuewe's work found in chapter three of this monograph. Concomitant with these re-written discussions, the USAF should add a seventh distinctive capability, that of "Building partner airpower capability and capacity," to reflect the essential role that advising, training, and assisting plays in irregular warfare, and the unique capabilities airpower professionals bring to this arena.

Fifth, any USAF discussion of the "Tenets of Air and Space Power"<sup>185</sup> should include the idea that "Centralized Control, Decentralized Execution" may not be a perfect fit for all irregular warfare situations. While the general idea is still valid and may apply to some degree, planners and commanders must weight the needs of a joint, interagency, and potentially multinational strategy and force against the occasionally dogmatic application of this tenet to the organization and employment of air and space forces provided. Similarly, the tenet of "Flexibility and Versatility" requires emphasis for its application in the irregular environment. It is in this respect that airpower may make its most important contribution, not as much in its ability to freely maneuver around the battlespace in three dimensions as in its ability to steal the initiative from

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<sup>183</sup> See *AFDD I* for all of these.

<sup>184</sup> *Ibid.*, 53-54.

<sup>185</sup> *Ibid.*, 27.

the enemy by rapidly bringing supported ground forces into the fight and by limiting the sanctuary that might previously have offered enemy forces.

Finally, some key general considerations surfaced in chapter three but not previously addressed, should be written into USAF basic and operational doctrine. Those considerations are:

1. A comprehensive, joint, interagency strategy is required
2. Irregular wars are long wars
3. Irregular wars are intelligence sensitive
4. Maintaining awareness of the capabilities and limitations of technology in an irregular war context is essential
5. All doctrine should be clear, succinct, and relevant

## Operational Doctrine

This section specifically addresses first-tier USAF operational doctrine, represented by *AFDD 2, Operations and Organization* and *AFDD 2-1, Air Warfare*. All of the proposals for basic doctrine apply to operational doctrine wherever that operational doctrine touches on the same areas addressed under the basic publication.

There are two operational doctrine proposals in addition to those presented in the previous section: changes in the structure of the USAF operational doctrine hierarchy and the addition of a theoretical construct for operationalizing the fundamental abstractions of irregular warfare airpower theory into concrete action.

USAF operational doctrine nomenclature inadvertently reflects its institutional bias toward traditional warfare and major combat operations. The USAF evinces this in the presentation of its primary focus operational functions -- counterair, strategic attack, and counterland, among others -- under its own first-tier operational document: *AFDD 2-1, Air Warfare*. This implies that other operational functions such as air mobility, information operations, special operations, and combat

support are not part of warfare and somehow less important.<sup>186</sup> Certainly in the case of irregular warfare, nothing could be further from the truth. In fact, none of the USAF classic primary missions of counterair (in the traditional sense of opposing enemy aircraft), strategic bombing, or interdiction plays a critical role in irregular warfare as described in chapter three. Thus, the USAF doctrinal hierarchy should reflect the broader applicability of all operational functions, especially in the irregular warfare context, by deleting the current inconsistent subcategories.<sup>187</sup> In their place, the second tier of USAF operational doctrine should be organized based on the current three USAF operational domains: air, space, and cyberspace,<sup>188</sup> with discussions of all applicable operational functions and distinctive capabilities for the full spectrum of conflict included within them. This change would likely require the substantial revision or deletion of *AFDD 2-1, Air Warfare* since that document is largely a redundant duplication of guidance presented in *AFDD 2, Operations and Organization*.

USAF doctrine currently uses the effects-based operations construct presented within *AFDD 2, Operations and Organization* to operationalize over-arching airpower theory into concrete action. This operationalizing construct may be applicable to a fundamental irregular warfare airpower theory as presented by Bellflower. However, it may also be necessary to further refine the effects-based operations theory for irregular warfare use. Ronald Stuewe and David Parsons both touch on this idea in their work, using an insurgency model from Leites and Wolf's *Rebellion and Authority* as the operationalizing engine.<sup>189</sup> That model, shown in Figure 4, is a depiction of an

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<sup>186</sup> Visit the US Air Force Doctrine Center website at <http://afdc.maxwell.af.mil/DoctrinePubs.asp> for a graphic depiction of this hierarchy.

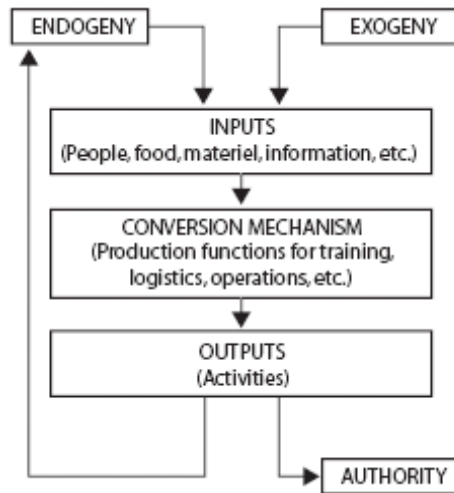
<sup>187</sup> Of which there are ten: Air Warfare, Space Operations, a space where once existed Military Operations Other Than War, Combat Support, Information Operations, Air Mobility Operations, Special Operations, Command and Control, a space where Weather Operations apparently once existed, and Homeland Operations. Based on an examination of publications depicted at <http://afdc.maxwell.af.mil/DoctrinePubs.asp>

<sup>188</sup> Current USAF Mission Statement from the United States Air Force public website at <http://www.airforce.com/mission/index.php>, accessed on 29 March 2007.

<sup>189</sup> For a complete discussion see Nathan Leites and Charles Wolf, Jr., *Rebellion and Authority: An Analytic Essay on Insurgent Conflicts*, (Santa Monica CA: the RAND Corporation, 1970), especially



insurgency system that allows operational planners to “target” supply and demand in the system in the form of concrete inputs and outputs.



**Figure 4. Insurgency As A System**

Source: Ronald F. Stuewe, “One Step Back, Two Steps Forward: An Analytical Framework for Airpower in Small Wars,” (*Air and Space Power Journal* 20, no. 1 Spring 2006), 91.

Whether the Leites and Wolf insurgent system or some other model is used, the operationalizing of a fundamental irregular warfare airpower theory, such as Bellflower’s, is an important and necessary addition to *AFDD 2*. This ensures the proper consideration of the irregular environment during operational planning and execution.

## Joint Doctrine

Joint capstone and operational, or keystone, doctrine is woefully inadequate in its attention to airpower and irregular warfare subject material. Joint doctrine can improve in four fundamental ways in this regard.

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chapter three; for an analysis of this approach and its applicability to airpower see Parsons and Stuewe, thesis and paper.

First, it should address irregular warfare per the Defense Department's accepted definition. This is occurring in the rewrite of *JP 1, Doctrine of the Armed Forces of the United States*, a change that should filter down throughout lower-level and service-specific publications.

Second, joint doctrine should more broadly define the full spectrum of conflict as recommended earlier in this chapter and in chapter one. The range of military operations concept put forth in the *JP 1* coordination draft is an incomplete and inadequate representation of the full spectrum of war.

Third, capstone joint publications such as *JP 1* or *JP 3-0, Joint Operations* need to portray airpower as an operational concept for the purposes of planning, executing, and commanding in its own right and not simply as an adjunct to a land-centric military-only campaign.

Finally, the basic and operational-level recommendations presented in the USAF section should filter into *JP 3-0, 5-0, Joint Operation Planning*, and applicable lower-level joint publications such as *JP 3-09, Doctrine for Joint Fire Support*, after revision of the applicable upper-level documents has occurred.

## **Recommendations for Further Study**

Recommendations for further study in the area of irregular warfare airpower doctrine include:

1. Specific proposals for improving joint doctrine
2. The best theory for operationalizing irregular airpower fundamental theory
3. How "action theory" informs the conduct of influence operations
4. The best organization, equipment, and training for general purpose forces conducting irregular warfare
5. Changes needed in tactical doctrine to reflect irregular warfare concepts

6. Changes needed within military leadership and education to prepare for and fight irregular wars of the future

## **Conclusion**

Overall, the development of doctrine for airpower in irregular warfare appears to be moving forward apace. Current USAF doctrine contains much discussion at the second- and third-tier operational level about some specific irregular warfare subsets: foreign internal defense and support to unconventional warfare operations. There is also ample airpower doctrine covering air mobility, and intelligence, surveillance, and reconnaissance -- two critical irregular warfare requirement areas in which air and space capabilities can be leveraged. The greatest gaps in irregular warfare airpower doctrine are at the basic and first-tier operational levels, especially in the areas of properly defining the full spectrum of conflict, providing a fundamental and operationalizing airpower theory that takes into account irregular warfare, and specifying air and space power roles and capabilities with regard to counterinsurgency and support to counterinsurgency. The recent publication of the U.S. Army's *Field Manual (FM) 3-24, Counterinsurgency* (Marine Corps Warfighting Publication 3-33.5) -- especially the airpower portions -- and the pending publication of *AFDD 2-3, Irregular Warfare* provide a positive trend in addressing these shortfalls. The USAF should continue this trend through a reevaluation of its basic and operational doctrine to address the shortfalls listed above and properly nesting its subordinate doctrine with the expanded theory and considerations of the rewritten basic and first-tier operational documents.

Once USAF and service-specific doctrine achieve this greater level of fidelity with regard to airpower's role and responsibilities in irregular warfare, the joint community should incorporate these new ideas, theories, and developments into joint doctrine and publications. There is discussion that this revision of joint air and space irregular warfare doctrine will begin early in the summer of 2007. Writers and authors of such revisions are cautioned to note the

current state of USAF and service-specific airpower in irregular warfare doctrine and answer three questions before proceeding: 1. has USAF doctrine fully integrated irregular warfare concepts at the highest levels of theory and principle? 2. are USAF and service-specific airpower in irregular warfare doctrine commensurate? and, 3. is support to counterinsurgency -- not just support to insurgency or unconventional warfare -- adequately addressed in the doctrine being used as a basis for joint revision? Inadequate or incomplete answers to any one of these questions implies the need to further refine existing USAF and service-specific airpower in irregular warfare doctrine before deficient or incorrect ideas are unleashed on a needy, but unsuspecting, joint community.

## BIBLIOGRAPHY

- Aerospace Studies Institute, Concepts Division. 1962. The Role of Airpower in Guerrilla Warfare (World War II). Project number AU-411-62-ASI, the Aerospace Studies Institute of Air University, Maxwell Air Force Base (AFB), AL.
- Aylwin-Foster, Nigel. 2005. Changing the Army for Counterinsurgency Operations. *Military Review*, November-December, 1.
- Barnett, Dennis L. 1988. The USAF and Low-Intensity Conflict: Evolution of a Doctrinal Void. Thesis, U.S. Air Force Air Command and Staff College, Maxwell Air Force Base (AFB), AL.
- Bellflower, John W. 2007. The Indirect Approach. *Armed Forces Journal*. Springfield VA: Army Times Publishing Company. January. Accessed online at [http:// www. armedforcesjournal.com/2007/01/2371536](http://www.armedforcesjournal.com/2007/01/2371536) on 11 February 2007.
- Boot, Max. 2002. The Savage Wars of Peace: Small Wars and the Rise of American Power. New York, NY: Basic Books.
- Beebe, Kenneth. 2006. The Air Force's Missing Doctrine: How the US Air Force Ignores Counterinsurgency. *Air and Space Power Journal* 20, no. 1 (Spring): 27-34.
- Borman, Dawn. 2007. "Fort Leavenworth bids farewell to Petraeus." *Kansas City Star*. Sec. B, p. B9. February 3.
- Brozenick, Norman J. 1998. Small Wars, Big Stakes: Coercion, Persuasion, and Airpower in Counterrevolutionary War. Thesis, U.S. Air Force School of Advanced Airpower Studies, Maxwell Air Force Base (AFB), AL.
- Callwell, C.E. 1996 reprint (originally published in 1906). *Small Wars: Their Principles and Practice (third edition)*. London: University of Nebraska Press.
- Clausewitz, Carl von. 1993. *On War*. Edited and translated by Michael Howard and Peter Paret. New York: Everyman's Library.
- Cooling, Benjamin Franklin, editor. 1990. *Case Studies in the Development of Close Air Support*. Washington DC: United States Air Force Office of Air Force History.
- Corum, James S., and Wray R. Johnson. 2003. *Airpower in Small Wars*. Lawrence, KS: University Press of Kansas.
- Corum, James S. 1998. The Air War in El Salvador. *Airpower Journal* 12, no. 2 (Summer): 27-43.
- Davis, Arthur D. 2005. Back to basics: An Aviation Solution to Counterinsurgent Warfare. Thesis, U.S. Air Force Air Command and Staff College, Maxwell Air Force Base (AFB), AL.
- Dean, David J. 1986. *The Air Force Role in Low-Intensity Conflict*. Maxwell Air Force Base, AL: Air University Press.
- Department of Defense. 2007. *Irregular Warfare Joint Operating Concept*. Washington, DC: Office of the Secretary of Defense.
- \_\_\_\_\_. 2005. *The National Defense Strategy of the United States of America*. Washington, DC: Office of the Secretary of Defense.

- \_\_\_\_\_. 2006. *The Quadrennial Defense Review Report*. Washington, DC: Office of the Secretary of Defense.
- Deptula, David T. 2001. *Effects-based Operations: Change in the Nature of Warfare*. Arlington, VA: Aerospace Education Foundation, Defense and Airpower Series.
- \_\_\_\_\_. 1995. *Firing for Effect: Change in the Nature of Warfare*. Arlington, VA: Aerospace Education Foundation.
- Doucette, John W. 1999. *US Air Force Lessons in Counterinsurgency: Exposing Voids in Doctrinal Guidance*. Thesis, U.S. Air Force School of Advanced Airpower Studies, Maxwell AFB, AL.
- Downs, William B. 2005. Unconventional Airpower. *Air and Space Power Journal* 19, no. 1 (Spring): 20-25.
- Drew, Dennis M. 1998. U.S. Airpower Theory and the Insurgent Challenge: A Short Journey to Confusion. *The Journal of Military History*, no. 62 (October): 809-832.
- \_\_\_\_\_. 1988. *Insurgency and Counterinsurgency: American Military Dilemmas and Doctrinal Proposals*. Center for Aerospace Doctrine, Research and Education paper, Maxwell Air Force Base, AL: Airpower Research Institute.
- Fadok, David S. 1995. *John Boyd and John Warden: Airpower's Quest for Strategic Paralysis*. Thesis, U.S. Air Force School of Advanced Airpower Studies, Maxwell AFB, AL.
- Feld, Donald H. 1988. *Out of the Closet: Counterinsurgency Doctrine for the USAF*. Research report, Air War College, Maxwell AFB, AL.
- Galula, David. 1964. *Counterinsurgency Warfare: Theory and Practice*. New York, Frederick A. Praeger Publishing.
- Graffis, Judy M. 1997. *Toward a Theory of Insurgent Airpower*. Monograph, U.S. Army Command and General Staff College, School of Advanced Military Studies, Fort Leavenworth, KS.
- Hales, Samuel E. 2005. *COIN Modeling: An MDMP Technique for Planning Counter-insurgency Campaigns*. Monograph, U.S. Army Command and General Staff College, School of Advanced Military Studies, Fort Leavenworth, KS.
- Johnson, Wray. 1997. Whither Aviation Foreign Internal Defense? *Air and Space Power Journal* 11, no. 1 (Spring): 66-87.
- Knox, Raymond O. 1989. *High Speed Jets in a Low Speed War: The Utility of Tactical Airpower in Low-Intensity Conflict*. Monograph, U.S. Army Command and General Staff College, School of Advanced Military Studies, Fort Leavenworth, KS.
- Kostelnik Jr., Edward A. 2005. *Air Commandos and Counterinsurgency in Southeast Asia: the Good, the Bad, and the Ugly*. Unpublished student paper for course SO3880, Naval Postgraduate School, Department of Defense Analysis, Monterey, CA.
- \_\_\_\_\_. 2005. *Counterinsurgency Doctrine: The Road Not Taken to Camelot*. Unpublished student paper for course SO4301, Naval Postgraduate School, Department of Defense Analysis, Monterey, CA.
- Krepinevich, Jr., Andrew F. 1986. *The Army and Vietnam*. Baltimore, MD: Johns Hopkins University Press.
- Krisinger, Chris J. 2003. Who We Are and What We Do: The Evolution of the Air Force's Core Competencies. *Air and Space Power Journal* 17, no. 3 (Fall): 15-25.

- Leites, Nathan and Wolf, Jr., Charles. 1970. *Rebellion and Authority: An Analytic Essay on Insurgent Conflicts*. Santa Monica CA: the RAND Corporation.
- Lohide, Kurtis D. 1994. *Airpower: A Solution for Bosnia*. Monograph, School of Advanced Military Studies, U.S. Army Command and General Staff College, Fort Leavenworth, KS.
- Longoria, Michael A. 1992. *A Historical View of Air Policing Doctrine: Lessons From the British Experience Between the Wars, 1919-1939*. Thesis, U.S. Air Force School of Advanced Airpower Studies, Maxwell AFB, AL.
- Mann III, Edward C., Gary Endersby and Thomas R. Searle. 2002. *Thinking Effects: Effects-Based Methodology for Joint Operations*. Maxwell AFB, AL: Air University Press.
- McIvor, Anthony D., ed. 2005. *Rethinking the Principles of War*. Annapolis, MD: Naval Institute Press.
- Murray, Williamson. 1997. Clausewitz Out, Computer In: Military Culture and Technological Hubris. *The National Interest*, Summer: 8 pages. Accessed online at [http://www.findarticles.com/p/articles/mi\\_m2751/is\\_n48/ai\\_19657028](http://www.findarticles.com/p/articles/mi_m2751/is_n48/ai_19657028) on 28 November 2006.
- Newton, Richard D. 1991. *Reinventing the Wheel: Structuring Air Forces for Foreign Internal Defense*. Report no. AU-ARI-CPSS-91-1. Center for Aerospace Doctrine, Research, and Education, Maxwell AFB, AL: Air University Press.
- Office of the President of the United States. 2006. *The National Security Strategy of the United States of America*. Washington, DC: The White House.
- Parsons, David Willard. 1993. *Towards the Proper Application of Airpower in Low Intensity Conflict*. Thesis, Naval Postgraduate School, Monterey, CA.
- Pugmire, M.S., Colonel, U.S. Air Force, Director, U.S. Air Force Coalition and Irregular Warfare Center of Excellence, Nellis AFB, NV. 2006. Personal interviews by author, 29 November and 15 December. Col Pugmire is a career USAF officer with extensive flight experience in T-37s, H-53s, and MH-53s. He served on the Air Force Special Operations Command Staff, commanded the 6th Special Operations Squadron (currently USAF's only combat aviation advisory unit), and served as air attaché in Bogota, Colombia. In June 2006 he was enroute to a job at U.S. Special Operations Command when he was diverted to stand-up the USAF Coalition and Irregular Warfare Center of Excellence within the USAF Warfare Center at Nellis AFB, NV.
- Pustay, John S. 1965. *Counterinsurgency Warfare*. New York: The Free Press.
- Read, Robyn. 2005. Effects-based Airpower for Small Wars: Iraq After Major Combat. *Air and Space Power Journal* 19, no. 1 (Spring): 103-112.
- Reynolds, Paul D. 1971. *A Primer in Theory Construction*. Boston, MA: Allyn and Bacon.
- Reynolds, Richard T. 1995. *Heart of the Storm: The Genesis of the Air Campaign against Iraq*. Maxwell AFB, AL: Air University Press.
- Rolfson, Bruce. 2006. "Report: Entire wing needed to advise foreign militaries." *Air Force Times*. Springfield, VA: Military Times Media Group. (4 December): 10.
- Searle, Thomas R. 2004. Making Airpower Effective Against Guerrillas. *Air and Space Power Journal* 18, no. 3 (Fall): 13-23.
- Selman, Rupert L. 1963. *What Operational Concepts Should Govern the Use of the Tactical Air Forces in Guerrilla War?* Thesis, Air War College, Maxwell AFB, AL.

- Stohry, Kimble D. 1990. *A Compass in Need of Alignment: Does United States Air Force Fighter Doctrine Adequately Cover Contingency Operations?* Monograph, U.S. Army Command and General Staff College, School of Advanced Military Studies, Fort Leavenworth, KS.
- Stuewe Jr., Ronald F. 2006. *One Step Back, Two Steps Forward: An Analytical Framework for Airpower in Small Wars*. Thesis, Naval Postgraduate School, Monterey, CA.
- \_\_\_\_\_. 2006. *One Step Back, Two Steps Forward: An Analytical Framework for Airpower in Small Wars*. *Air and Space Power Journal* 20, no. 1 (Spring): 89-96.
- Trinquier, Roger. 1964. *Modern Warfare: A French View of Counterinsurgency*. London: Pall Mall Press.
- U.S. Air Force. 2006. *Air Force Doctrine Document (AFDD) 2, Operations and Organization*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2006. *AFDD 2-1.3, Counterland Operations*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2006. *AFDD 2-1.9, Targeting*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2006. *AFDD 2-6, Air Mobility Operations*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2006. *AFDD 2-10, Homeland Operations*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2005. *AFDD 2-5, Information Operations*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2005. *AFDD 2-7, Special Operations*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2004. *AFDD 1-2, Air Force Glossary*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2004. *AFDD 2-3.1, Foreign Internal Defense*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2003. *AFDD 1, Air Force Basic Doctrine*. Maxwell Air Force Base, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2003. *AFDD 2-1.2, Strategic Attack*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2002. *AFDD 2-1.1, Counterair Operations*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2002. *AFDD 2-5.1, Electronic Warfare*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2001. *AFDD 2-8, Command and Control*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2000. *AFDD 2-1, Air Warfare*. Maxwell Air Force Base, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 2000. *AFDD 2-3, Military Operations Other Than War* (rescinded). Maxwell Air Force Base, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 1999. *AFDD 2-5.2, Intelligence Surveillance and Reconnaissance Operations*. Maxwell AFB, AL: Air Force Doctrine Center.
- \_\_\_\_\_. 1967. *Air Force Manual 2-5, Special Air Warfare*. Washington, DC: Department of the Air Force (AFXOPFI).



- U.S. Air Force School of Advanced Airpower Studies. 1997. *The Paths of Heaven: The Evolution of Airpower Theory*. Maxwell AFB, AL: Air University Press.
- U.S. Army. 2006. *Field Manual 3-0, Full Spectrum Operations* (doctrinal review and approval group [DRAG]). Washington, DC: Headquarters, Department of the Army.
- \_\_\_\_\_. 2005. *Field Manual 1, The Army*. Washington, DC: Headquarters, Department of the Army.
- U.S. Army and U.S. Marine Corps. 2006. *Field Manual 3-24 or Marine Corps Warfighting Publication 3-33.5, Counterinsurgency*. Washington, DC: Headquarters, Department of the Army and Headquarters, United States Marine Corps.
- U.S. Joint Chiefs of Staff. 2004. *The National Military Strategy of the United States of America*. Washington, DC: Office of the Chairman of the Joint Chiefs of Staff.
- U.S. Joint Staff. 2006. *Joint Publication (JP) 1, Doctrine for the Armed Forces of the United States* (revision final coordination draft). Washington, DC: Joint Staff Directorate for Operational Plans and Joint Force Development (J-7)
- \_\_\_\_\_. 2006. *JP 3-0, Operations*. Suffolk, VA: U.S. Joint Forces Command.
- \_\_\_\_\_. 2004. JP 3-07.1, Joint Tactics, Techniques, and Procedures for Foreign Internal Defense. Washington, DC: Directorate for Strategic Plans and Policy (J-5).
- \_\_\_\_\_. 2001 (as amended through 2005). *JP 1-02, Department of Defense Dictionary of Military and Associated Terms*. Washington, DC: Joint Staff Directorate for Operational Plans and Joint Force Development (J-7).
- \_\_\_\_\_. 2001. *Joint Doctrine Capstone and Keystone Primer*. Washington, DC: Joint Staff Directorate for Operational Plans and Joint Force Development (J-7).
- \_\_\_\_\_. 1995. *JP 3-07, Joint Doctrine for Military Operations Other Than War*. Washington, DC: Directorate for Strategic Plans and Policy (J-5).
- U.S. Marine Corps. 1940. *Small Wars Manual*. Washington, DC: U.S. Government Printing Office.
- Van Creveld, Martin. 2000. *The Art of War: War and Military Thought*. New York: HarperCollins Publishers.
- Vick, Alan J., Adam Grissom, William Rosenau, Beth Grill, and Karl P. Mueller. 2006. *Airpower in the New Counterinsurgency Era: The Strategic Importance of USAF Advisory and Assistance Missions*. Santa Monica, CA: RAND Corporation, Project Air Force.
- Vrooman, Stephen. 2005. *A Counterinsurgency Campaign Plan Concept: The Galula Compass*. Monograph, U.S. Army Command and General Staff College, School of Advanced Military Studies, Fort Leavenworth, KS.
- Warden III, John A. 1995. The Enemy as a System. *Airpower Journal* 9, no. 1 (Spring): 41-55.
- Warden III, John A. 1988. *The Air Campaign: Planning for Combat*. Washington, DC: National Defense University Press.